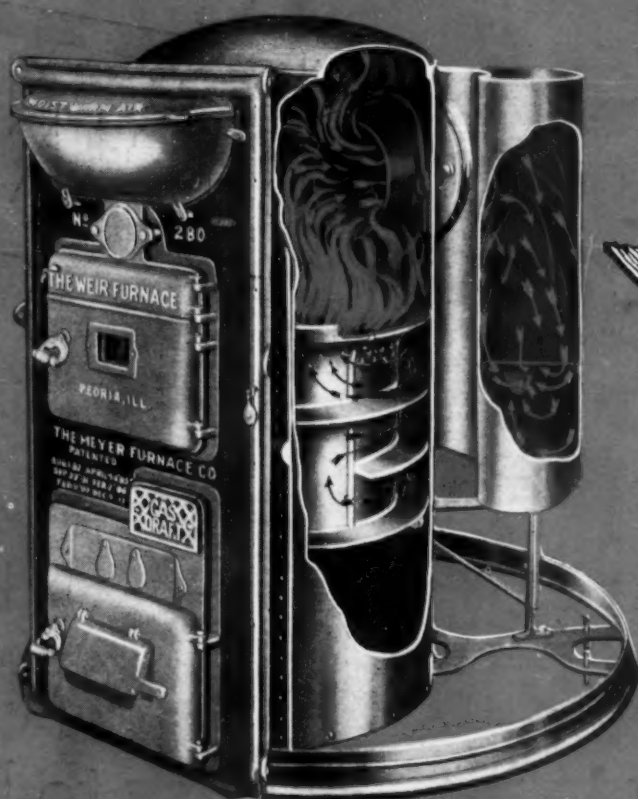


AMERICAN ARTISAN and Hardware Record

Vol. 87. No. 7. 620 SOUTH MICHIGAN AVENUE, CHICAGO, FEBRUARY 16, 1924. \$2.00 Per Year.



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AN INVITATION

AMERICAN ARTISAN courteously invites and urges you to participate in the privileges and benefits of its Service Department. Any phase of the warm air heating and sheet metal industries or stove sales and window display questions may be profitably and instructively discussed in this department. If your problem is a knotty or technical one, submit it to the Service Department and secure the benefits of the opinions of other men. It is an exchange information department, and you are asked to relate your accomplishments and tell how you have surmounted difficulties. Wherever possible rough sketches or photographs should accompany the questions or suggestions, as they always make clear the points involved. Use this Service Department freely; it is yours.

ALPHABETICAL INDEX AND CLASSIFIED LIST OF ADVERTISERS, Pages 60-62-64.

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Mail Order House Works Itself Back to Normal Earning Basis in 1923

Editorial
of the
Week

THE mail order house is the natural enemy of the retail merchant; in fact, it is his greatest potential competitor, towering above him and reaching out like a great octopus in all directions with its mammoth tentacles. It enters his town and takes the cream of the business upon which the retail merchant has already paid taxes, while it pays nothing directly toward the upkeep of the institutions which the town must support.

However, the mail order house is an established institution in the existing economic scheme of things and it will continue to be so until the retail merchants of these rural communities take measures to eliminate this menace to their own business. The tactics of the mail order house are such that if they were employed by the retail merchant, they would go a long way toward putting the skids under their originator.

But it is an ill wind that blows no one good.

The annual report of Sears, Roebuck & Company shows that this firm in 1923 worked its way back to a normal earning basis. Get that? **Worked its way back to a normal earning basis in 1923.**

The net income of the firm for the year just ended, after deducting all charges, was \$11,512,617 which, after preferred dividends were paid, left a balance of \$10.95 a share available for the \$100,000,000 of common stock outstanding. Put these figures in the convolutions of your memory, because they'll give you food for some good hard cogitation after the closing hour.

In 1922 the company had a net income of \$5,435,168 and surplus earnings available for the common stock equivalent to \$4.87 per share.

The gross sales of the company for 1923, the report shows, were \$215,540,604; 1922 were \$182,165,824, an increase of \$33,374,780.

Remember that these dividends were paid after all charges for repairs, pensions, depreciation and other reserves were set aside.

The goods returned in 1923, expressed in dollars and cents, amounted to \$24,216,457; those returned in the year 1922 amounted to \$21,517,672.

What do these figures mean and how can we profit by the information which they contain? Just this:

Sears, Roebuck & Company is one of the largest mail order houses in the country. It does business all over the country, principally in the rural communities—where you live.

The fact that this company has worked itself back to a normal earning basis proves that business in this country right now is in a healthy and flourishing condition.

If further proof is needed, the report shows us that the amount of returned goods for 1923 is less in proportion to the total amount of sales than for the year 1922. This is certainly a healthy sign and should go a long way toward instilling confidence in the minds of those who need it.

With this epitome of business conditions before us, we do not hesitate to say that the man who is continually grumbling about poor business conditions at this time must charge his failure to affect a rapid stock turn to his own lethargy and inertia.

Business is as good as you yourself make it. No one can help the fellow who won't help himself. Get busy!

Work on the basis that people do not wait until their old stove is worn out before buying a new one. They wait just long enough for someone to convince them that they can get the work done easier and cheaper with the new article. If you're on the job, you'll be the one to convince them of their immediate as well as future needs.

Random Notes and Sketches.

By Sidney Arnold

How many of you stopped last Tuesday to think of the first of our martyred Presidents?

The following verses by Thomas Curtis Clark were written in commemoration of that first great war president, Abraham Lincoln:

Lincoln.

Wise with the wisdom of ages,
Shrewd as a man of trade,
Grim as the prophets and sages,
Keen as a damask blade;

Firm as a granite-ribbed mountain,
Tender as woman's song,
Gay as a scintillant fountain,—
Yet was he oaken-strong.

Here, the wonder of aeons;
Born unto pain and strife;
Dead, 'mid a thousand paeans,
Deathless, he enters life!

* * *

E. B. Langenberg, who is the new Vice-President of the "Front Rank" outfit, believes in having his salesmen put in a full week of full days, and I know that A. F. Fanning puts in five and one-half days, for I traveled with him from Canton, Ohio, toward my home town on a Saturday afternoon; he had worked until noon that day, anyway.

But what I was going to say was, that in "E. B.'s" office there is one of those motto cards that reads as follows:

"Two hoboes met on a blind siding. One had been a salesman whose hours were from 10 a. m. to 4 p. m. The other one didn't have any money, either."

Some gentle hint, I call it—and it is worthy of note in this connection that brother Fanning and Harry Beaman topped the list of the sales records for 1923.

* * *

Steve Tuthill, Secretary of the American Zinc Institute, also edits *Zn*, the monthly publicity organ of that live organization, and quite frequently I find items in it that fit so aptly into the work which we are trying to do that I feel free to quote them here, such as the following:

Who has not heard of the ancient

Roman father who, about to divide his estate among his sons, had them bring to him an armful of fagots. He directed the oldest son to break several of them, which was done with ease. "Now bind the fagots in a bundle," said the father, "and attempt to break them." The son did so, but the united fagots resisted his utmost strength. By this object lesson the sire taught the youth the virtue of presenting a united front to the difficulties and emergencies of social and business life.

After a united front has been built up much still remains to be done to secure effective action.

One of nature's unpardonable sins is "standing still." Standing still means stagnation; action means going ahead.

"Thrust in thy sickle and reap: for the time has come for thee to reap."

After 1,828 years this fundamentally sound advice needs modification only in respect to the instrument for reaping. Harvests of magnitude are made today by automatic reapers and steam or gasoline tractors—not with sickles.

* * *

D. A. Purviance, of the Majestic Duplex Register people, is an ardent Legionnaire and whenever he gets a chance he tries to get a prospect to sign up.

The other day, he met a young fellow in Huntington who looked as if he was good enough to have been in the first division to go overseas.

"Want to join the Legion, buddy?" he asked.

"Can't; wasn't in the service."

"Why weren't you?"

"My intentions were good," was the rather reluctant explanation. "I went to a recruiting office where they put me in a room and told me to take off my clothes. A doctor walked up to me, looked at me kinda

hard, and then thumped me on the chest. I wasn't in the habit of letting strangers get rough with me, so I thumped his chest—an' I didn't get out of the hospital until the war was over."

* * *

A. F. Hem, of the Utica Heater Company, was out riding with a friend by the name of John Smith the other evening, when they were stopped by a policeman on account of poor lights.

"I'll have to take your name, sir."

"John Smith," was the reply.

"Don't try that on me, sir," warned the man in blue. "I want your proper name and address."

"Then if you must have it, it's William Shakespeare, Stratford-on-Avon."

"Thank you, sir," said the policeman, jotting it down. "Sorry to have troubled you."

"Don't mention it," said the motorist, driving on.

* * *

Of all the high brows who have made good as Secretaries of hardware associations, P. J. Jacobs is the most high browed, for it reaches back to his collar, but he is not worried about it, as will be seen from the following question I put to him the other day and from his answer:

"Have any of your childhood ambitions been realized?"

"Yes, when my mother used to cut my hair, I always wished I hadn't any."

* * *

For some reason Dave Farquhar, of the "Tee and Bee" vaudeville team, was having a lot of trouble in getting on the right train to bring him home from the Indianapolis sheet metal convention. After three or four unsuccessful attempts he finally got on the right one. Sitting down, he began to swear comfortably. A minister seated behind him said: "Young man, stop your swearing. Don't you know you're on the way to Hell?"

"Wrong train again," muttered Dave, and was on his way out of the car when I met him and quieted him down.

A. H. Ballard Acquaints Heating and Ventilating Engineers with Status of Domestic Oil Heating.

Says Burner Should Be of Atomizing Type, and Fuel Not Lighter Than 32 Degrees Baume.

THE address given below is that of A. H. Ballard, New York, New York, which was presented at the annual meeting of American Society of Heating and Ventilating Engineers, Pennsylvania Hotel, January 22 to 25.

The address deals with the status of fuel oil heating and the important features are touched upon.

As there is so much discussion regarding oil for domestic uses and as it is such a lively art at this time, with so many different minds working on devices, it is most important that the subject of oil for this purpose be discussed in order to know what to expect in the way of fuel oil for the future.

Most domestic burners are designed for use with oil commonly known as gas oil, which runs in gravity of something over 32 degrees Baumé, and any make of burner ought to be condemned that has been designed so as to be wholly dependent upon this oil for its success, for the reason that the market for this oil has in the past ten years been more or less fluctuating, and with various sources of information from reliable refiners, it is very liable to be uncertain as to price in future. The reason is that gas oil has many qualities and it can be refined into higher grade products which are worth more money than oils burned for fuel.

An equipment that burns the heaviest oil possible is best, for the heavier the oil the more B. t. u.'s there are per gallon, and the less liable it is to fluctuate in price. So long as the world demands gasoline, so always will there be fuel oil. Whereas with gas oil, as it has a considerable amount of available gasoline, whenever there is a higher market for gasoline (making it profitable to further refine this gas

oil), then automatically the price rises to a point where it would be uneconomical to use it as a fuel for house heating. On the other hand, the price for fuel oil cannot rise above a point where it becomes prohibitive for use in furnaces, as it has no higher value, nor is there any other market where it could be used that would bring a better price than that of being used as a fuel.

Consequently, the logical domestic oils are of a gravity from 20 degrees Baumé to 32 degrees Baumé. This is an ideal oil, there is plenty of it, and, owing to the fact that it flows freely at zero, it does not need pre-heating—a requirement which excludes for this purpose any oil heavier than the oil above mentioned.

Classifying, then, the oil that best meets the needs for fuel purposes, developing a burner that will use this oil before is most essential to produce anything of a permanent nature. This means that all burners of the vaporizing type must be excluded to that a burner of this type must use a fuel of very light gravity in order to burn successfully and will not work successfully with a fuel oil.

The science of burning fuel oil consists of the complete atomization of the oil, and air introduced so that each atom of oil is immediately surrounded with air for perfect combustion. The means for atomizing this oil is not paramount to its success, but an oil burner together with the oil burning system must be designed simply, have minimum working parts, must be well constructed, and above all, the use of gravity fuel oil tanks must be condemned.

For the success of a domestic oil-burning equipment for the present, at least, the storage of oil should be thoroughly considered and an oil-

burning installation should not be installed without an oil storage for at least three weeks' supply. In the future it might be that there will be deliveries of fuel oil from door to door in 5-gallon lots, but at the present time the scattered deliveries mean so much in the way of added cost that it is not an economical way of handling fuel.

It must be remembered that the entire question of oil burning is one where service is paramount to everything else; for, finally analyzed, the distributor is not only selling an oil burner or oil-burning equipment, but he is selling a *fire* and to commercialize this, he must sell this *fire* to women and children. The distributor must always have trained forces on hand to render service before he may sell installations, so that in case of trouble trained hands must be available to make the necessary adjustments or replacements.

With the domestic house-heating equipment, the automatic features are absolutely necessary to the equipment. A properly installed system must have maximum controls. In connection with this, there should be room-temperature control, which is adjusted so that when the temperature of the room rises to a certain figure the fire goes out.

Oftentimes, due to cheaply installed heating systems where improper devices are used for releasing the air from the radiators, some part of the system becomes sluggish or slow, with the result that while the temperature might register 70 degrees in the living room, other radiators might be cold; the operator of the system observing this condition, is naturally led to decide that the fire should be burning when the automatic control has shut it off, and in most cases the system will then be tampered with to find out why the fire does not burn. The result is, generally, that the system is put out of commission and service is necessary.

As previously mentioned, the science of oil burning involves complete oil atomization and air introduction. It can be readily understood that there is no great mystery

to oil burning, or at least nothing that is not well understood. The only qualification, therefore, that goes to make up an ideal domestic system is simplicity, factors of safety, and proper installation with proper service available.

There is a great deal said about the price of domestic equipments, and a great many people are making mistakes by putting in small storage tanks. This is practically the only item that can be cut down on that would not affect the working of the system, and consequently, due to sales resistance, the manufacturers are selling equipment, making little or no recommendation for the proper size of storage.

To sum up, recommendations for the consideration of an engineer for the benefit of those interested would be the following:

1. The system should burn oil of not lighter than 32 degrees Baumé fuel oil.

2. The burner should be of the atomizing type.

3. There should be no part of the equipment located inside of the boiler, so that in case of emergency, such as stoppage of the electricity, a temporary wood fire may be started to meet the emergency.

4. All dampers should be of a size so they cannot close more than 80 per cent of the area of the smoke pipe.

5. All equipment installed with an oil-burning system should be of the very best materials and workmanship, securely fastened, all parts in a convenient place, and so constructed that it can be kept clean and frequent supervision made thereof.

6. The question of noise, both mechanical and combustion, should be taken into consideration in any type of an oil burner, because the system may be very quiet in one place, and in another the effect may be offset, and the vibration may be heard throughout the house.

The matter of noise is a problem that all manufacturers have confronting them every day and can only overcome it when they reduce it to practice in each individual instance and put an expert on the job

to analyze conditions and adjust the system thereto.

In conclusion, when a comparison of value is asked for between oil as a fuel and coal, virtually it requires 156 gallons of oil to equal 1 ton of coal, when a given percentage of efficiency is used in both cases and where a fair standard of B. t. u.'s in both coal and oil are taken. However, in ninety-nine cases out of a hundred the comparison shows much more in favor of oil due to the fact that the furnaces for coal burning are so varied that it is astonishing how crudely coal is burned in the majority of cases.

Statements have been made by manufacturers that 100 gallons of oil equal 1 ton of coal. This is not true in the case of heat values.

However, it is a fair assumption to say that 135 gallons of oil will equal 1 ton of coal when reduced to practice in each domestic unit properly installed.

The questions of virtue of oil in the way of saving labor, ash removal and dirt, as shown by salesmen, are points well taken. The consumer properly equipped with an oil-burning system would suffer in the way of heating costs a great deal before he would change back from oil to coal.

Oil burning as applied to residences has not even started as yet and the future will show a rapid growth for the manufacturer who reduces to practice a quiet, effective atomizing system and renders service thereafter.

Fire Insurance Expert Discusses Oil Burners From Standpoint of Fire Hazard.

He Urges That Great Discretion Be Used in Selecting Burners That Are Properly Constructed.

THE following article by Curtis R. Welborn, of the Underwriters' Laboratories, will be read with much interest in view of the great growth of the oil burner industry:

Safety Precautions for Domestic Burners.

"Oil has and will, in all probability, play for a considerable period of time a prominent part in national and international relations, but not until recently have we given much concern regarding the part it is beginning to play in our domestic affairs.

"The prevailing coal shortages and the accompanying high prices have forced the great buying public to seek cheaper fuel. As a result of the demand on the part of the public, the combustion, mechanical and electrical engineers, as well as the 'Jack of all trades' of the country, have made and attempted to make oil burning devices for domestic use. Some of these devices are well manufactured of suitable material, and safeguarded as far as the advancement of the art dictates, while

a number are nothing more or less than piles of hardware and are a real menace to life and property. Unless the device is properly constructed, installed and maintained, oil burners may not be considered as having been safeguarded so far as practicable. This article from a fire prevention viewpoint may be termed a brief survey on 'How To and Not To Do It' with respect to the construction, installation and maintenance of domestic oil burning equipment. Briefly, it is thought the factors which will govern the success of any domestic burner are:

First: The device must be correct in principle and constructed properly;

Secondly: The device must be sold correctly;

Thirdly: The device must be installed and maintained correctly.

Two Groups of Burners.

"Experience over an extended period of time, involving research and the testing of domestic oil burners, leads to a grouping of the burners into two classes: those constructed by the try-and-fail method,

in which little or no consideration has been given to varying conditions under which the device will be called upon to perform in actual service, the character and combustion of the fuel utilized in the device, the known physical properties of the metals employed in the assembly, the safeguarding of the equipment against the tampering of the laymen, as well as to internal phenomena that lead to or introduce additional hazards; and the second type, designed prior to the construction of a test sample, in which careful attention has been paid to all the features previously mentioned.

"When subject to actual service conditions, covering an extended period of time, the burner of the first type has been observed, in most cases, to fail in operation, and in the failure the construction, in some cases, introduced hazards jeopardizing property to a great extent. It is deemed advisable, from a fire protection standpoint, that domestic oil burners be designed in proper sizes, or with some form of adjustment to meet the varying conditions with respect to the many different types of the existing heating units and their inherent characteristics, and that combustion of fuel specified by the manufacturer of the device be proven suitable with the oils of both asphaltum and paraffin bases. It is also necessary to determine the materials employed in the assembly, with particular reference to those exposed to high temperatures, possess properties that will insure durability and reliability of operation for an extended period of time, and that the device will be safeguarded with apparatus that will render the equipment inoperative in the event of flooding or other trouble in the heating equipment that may introduce fire and casualty hazards.

The Manufacturer's Sales Policy.

"As the sale of oil burning equipments is largely a question of the policy of the manufacturer, it may appear to be far fetched to the average individual, for those interested in the reduction of fire hazards to the state that this is a factor also concerning them; nevertheless, it is

a fact. As an illustration, overzealous salesmen often, through a firm belief in their product and the lack of technical education, misrepresent to the innocent buying public the character of the fuel their equipment will consume, its economy as compared to coal and low operating costs, and fail, in many cases, to make a careful survey of the installation in which the burner is to be installed. The purchaser finds that he can buy the fuel of the specific gravity recommended by the salesman, but when placed in service the device is soon inoperative or fails to function. Under the varying conditions imposed, the equipment fails to substantiate the salesman's statements about low cost of operation and economy of fuel as compared to coal, and that the burner capacity is adequate for the heating plant. The purchaser then assumes that the equipment is out of order, as the sales talk assured proper performance on all these points, and proceeds to make adjustments to accomplish the end. As a result of tampering on the part of the average layman, fire and casualty hazards often ensue. It is thought and suggested that the manufacturer's policy with regard to sales propaganda and talk should be confined strictly to facts, particularly those of a technical nature, and that all salesmen be carefully and thoroughly schooled before attempting to secure contracts.

Three Phases of Installation.

"The installation of an oil burning system may be divided into three distinct phases; namely, the tanks, the pipe lines, and the burner proper. In many cases there is an additional phase, the electrical. Each of these phases offers certain outstanding problems, which, if neglected, are liable to introduce hazardous conditions that should be avoided.

Here Mr. Welborn gives a number of devices and types of construction to be avoided in the installation of your oil burner. They are:

- (a) Storage tank above ground.
- (b) Pipe line between storage

and auxiliary tank leading from the bottom of the large container. (In the event of a pipe line rupture or leak, the contents of the storage tank will be discharged into the basement.)

(c) A glass located in the basement, employed in the line to indicate the oil level of the storage tank. (Breakage of glass will discharge contents of the storage tank into the furnace room.)

(d) The use of flange unions with rubber gaskets. (Rubber will in time be rendered useless if in constant contact with the liquid fuel.)

(e) A shut-off valve without standard packing. (Hard to shut off and may leak into basement.)

(f) No overflow pipe from auxiliary tank to storage tank. (Must have means of discharging excess oil into the main storage.)

(g) Ordinary cork float gauge for auxiliary tank with stem projecting through the top of tank. (In the event of filling to capacity the liquid fuel will discharge into the room.)

(h) Auxiliary tank vented inside basement. (In event of fire oil vapors would increase the hazard.)

(i) Tank constructed of thin material unprotected against corrosion.

(j) Tank resting on combustible supports.

(k) Supports not fixed to floor.

(l) No means of cleaning auxiliary tank.

(m) Pipe line to burner exposed. (Small pipe might get shocks which would cause leakage.)

(n) Flanges not secured by soldering.

Burner Must Have Attention.

"It has been observed," he goes on, "in some instances where the devices that are safeguarded as far as the state of the art dictates and installed in accordance with the regulations, that operating troubles are often experienced by the purchaser. Upon investigation of the causes leading to this trouble the service man finds that little or no attention has been given to the device. Mechanical appliances must be examined frequently to insure proper performance. Manufacturers are fur-

nishing maintenance instructions and if proper functioning of the device is to be reasonably expected, these must be followed. It is considered good practice by those actively engaged in this work to examine these equipments once each day.

"In conclusion, it has been noted that many localities have not made use of the available information on this subject in the regulations on Oil Burning Equipments published by the National Board of Fire Underwriters, as recommended by the Na-

tional Fire Protection Association, which will, upon request, be supplied free of charge. As a result a very wide difference of practice is manifested in the types of burners and installations permitted. Only those types of equipments the merits of which have been tested and proved, and that are installed in accordance with practices accepted by the authorities, should be allowed, if we who are attempting to safeguard America give the public what it is asking of us."

Do You Approach Your Furnace Prospect With the Notion That He Does Not Want to Buy?

R. B. Monfort Suggests That You Go to Him With the Idea That You Are Doing Him a Favor by Giving Him Real Facts About Your Furnace.

HERE is an idea that will help those who find it hard to "sell":

It is contained in one of R. B. Monfort's "Firebox" letters to the salesmen of the Farquhar Furnace Company:

The Easy Way

I was discussing sales methods with a man recently and happened to uncover a new idea which is worth passing along.

This man has been selling things for more than twenty years, therefore is able to speak from experience. During our chat he said: "Did you ever notice how difficult some fellows make their job of selling?"

"Next time you have the opportunity, notice how the average salesman will proceed on the theory that Mr. Prospect is *not* going to buy. They start in to overcome and beat down a big resistance, and by their very act, create the resistance they are trying so hard to overcome.

"Long ago I learned how much easier it is to proceed on the belief that the prospect *wants* to buy *when* he knows where and how he can get the service I have to offer. Therefore, my job is really to make him feel that I am sorry to have neglected him so long, and show that I am anxious and ready to tell

the story of my service as soon as he can listen attentively.

"You can't imagine what a difference it makes in selling and it adds all kinds of fun to the job."

Then he told me how, years ago, his boss had taught him the lesson by means of a simple illustration wherein he (the boss) sold a customer so easily and quickly that the customer almost apologized for not buying sooner.

We must be careful that we don't take our jobs too seriously and thereby make our work more difficult than necessary. You don't have to apologize for trying to tell a man—or woman—about the FarQuar furnace. Just feel confident that if he only knew the facts as you know them, he would *want* the FarQuar System without your having to sell it.

It takes confidence in your goods and in yourself to sell easily. There are hundreds of reasons why you can place the utmost confidence in the FarQuar System—and those reasons represent the universal satisfaction of present FarQuar users.

Don't make your job any harder by doubting yourself—and for goodness sake, don't doubt the goods you are selling.

Success Heater Manufacturing Company Will Continue Business of Former Company.

During the Iowa Hardware Convention, J. C. Mobley, who for many years has been associated with the management of the Fred M. Hubbell Estate of Des Moines, Iowa, which was the principal creditor of the defunct Success Heater & Manufacturing Company, made the following statement to the Editor of AMERICAN ARTISAN:

"The entire assets of the Success Heater & Manufacturing Company have been sold to the Hubbell interests of Des Moines, Iowa.

"The business is now being operated under the name of Success Heater Manufacturing Company, under which name it is now being incorporated.

"The new company will continue the manufacture of the Success line of warm air steel heaters and is now in position to meet all the requirements of its many loyal dealers throughout the United States.

"All of our departments—manufacturing, selling, engineering and accounting—are now on an efficient basis so necessary for full coöperation with our dealers and their trade."

W. E. Colbert Now Representing Fox Furnace in Pennsylvania.

W. E. Colbert, formerly with the Schley & Nash Company, Pittsburgh, Pennsylvania, is now representing Fox and the Sunbeam proposition in Western Pennsylvania, effective February 1st, is the announcement made by S. W. Hetherington, Manager Advertising, The Fox Furnace Company.

This arrangement was made by a mutual agreement with their former jobber, Schley & Nash, who intend to devote their entire effort to the regular plumbing and plumbing supply lines.

The automobile always beats the train to the crossing, barring accidents.

Read every page in this issue.

Designing Dormer Windows to the Shape of an Irregular Segment.

Elevation Gives Excellent Idea of How This Unusual Piece of Work May Be Accomplished.

Written Especially for AMERICAN ARTISAN by O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri.

SOME dormer windows are designed to the shape of an irregular segment, as the front elevation shows. The proportion of working the various curves is done similar to the manner of designing segment and pediments taken up in a former issue. From this obtain the height 1 in relation to the extreme width of the moulding, and by means of this we take the slant rise 1-7 and treat that as an offset, which gives us the new radii centers X and Y. The roof in this case is slanting upward and must therefore intersect the main roof line A-B, which will give an appearance similar as the front elevation shows.

First draw the irregular segment 1-7 of front elevation, and divide in any number of equal spaces. Bring these points over horizontally to a vertical line as C-D as in points 2-3-4, etc. From point C draw the roof line to the angle or bevel specified as C-1' and then from each point in this line C-D carry the roof

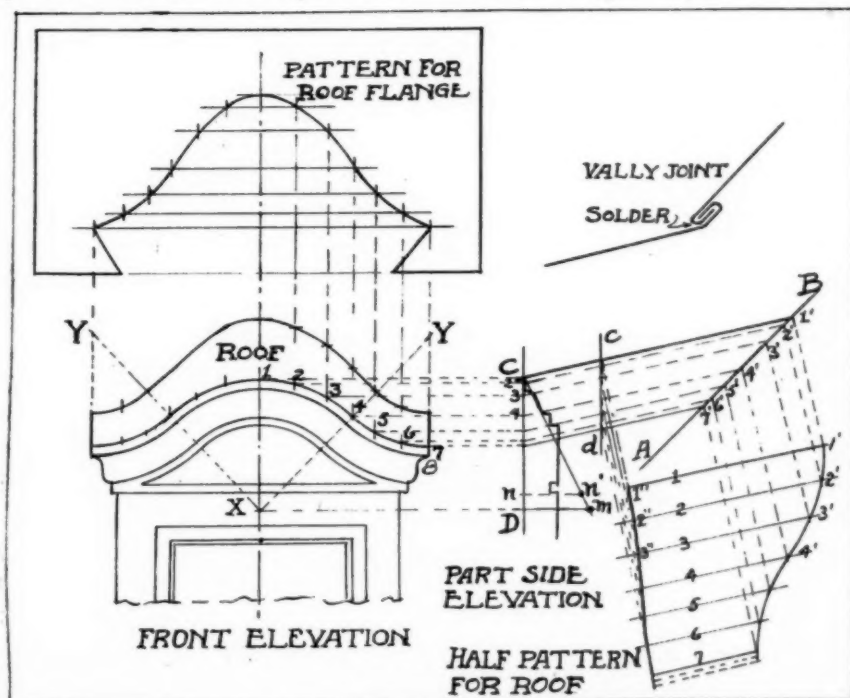
lines parallel to C-1' until they intersect A-B, as in points 2'-3'-4', etc. For convenience we move the line C-D in as c-d, since it is not always possible to lay out the full length of pattern anyhow, and this makes it more convenient for developing.

Because of the shallow slope or bevel these dormer roofs have, the girth can be taken direct from front elevation with considerable accuracy; however, if the line C-1' of roof is more pronounced than we show, a modified detail must be developed for this roof girth, because the angle which the roof lines make from C-D shortens the girth, and it therefore may make some confusion in assembling, but for common roof work it is generally considered sufficiently accurate to take the girth from front elevation, which saves developing the modified detail.

Picking the girth from the front elevation, we set it on a set line drawn at right angles to C-1', as

1-2-3-4, etc., to 7, and through these points we draw stretchout lines, after which lines are projected at right angles to C-1' from each intersection in A-B, also c-d. Where these lines intersect, stretchout lines of similar number as in points 1'-2'-3'-4', etc., also 1"-2"-3", etc., sketch in the curved lines to the intersections and you have the half pattern for the roof of dormer. To lay out the roof flange we pick the girth from main roof A-B as 1'-7', each space separately, and set it above front elevation on the center line in numerical order. Draw stretchout lines through these points and then from each point as 1-2-3-4-5-6-7 of front elevation, erect lines to cross those in stretchout of similar number. This allows sketching in the miter line in the roof flange and by allowing the small triangular piece which can be left square, from what would be point 6, the pattern for the roof flange is finished. This small piece added to the bottom is for the side moulding to fit against.

To set out the patterns for the blank of irregular segment, we pick the radius X-1 and set it as C-D, which is the same as projecting the line from X in front elevation into side elevation. Then drawing a radius line through the ogee to somewhat average up the angle, then the intersection will be the radius for the center segment. To develop the side reverse segment, we pick the radius Y-8 and set as 3-n on line C-D. Then bring a horizontal line over to n' and you have the radius for describing the balance of the segment. Observe the point 8 of front elevation is where the ogee and the fillet meet, or it is the very top of the ogee, and therefore in our part side elevation the point 3 corresponds, and hence we use this



Working Drawing of Irregularly Shaped Dormer Window.

number to save putting down additional figures. The irregular segment would be described in one piece much as you see it in elevation, and after the blank is ham-

mered so as to roll out the top and draw in the bottom, the segment would be planted to the side mould. Edges for seaming must be allowed extra on all parts.

Grand Stand at University of Iowa Is Built of Iron and Steel Instead of Concrete.

Another Example of Sheet Metal Being Selected in Preference to Other Materials Because of Superior Advantages.

A NEW type of grandstand, used in connection with a collegiate athletic field, has been constructed at the University of Iowa, located at Iowa City. This grandstand was designed by B. J. Lambert, professor of civil engineering, and was built of iron and steel, instead of the customary reinforced concrete.

The stadium has become a very important part of the equipment of the up-to-date college and university, and this departure in grandstand construction at the University of Iowa is attracting the attention of leading architects and engineers.

Last year Iowa startled the football world by defeating Yale at New Haven, and thereby again proved the caliber of western football to the easterner. This year the university is showing the engineering world something new in grandstand construction.

A very interesting study and analysis is behind the choice of metal for the newer sections of the stadium. As Chairman of the Board of Control of Athletics, Professor

Lambert undertook an exhaustive study, looking to the improvement of the athletic field.

There were impediments in the way of designing the new stands, peculiar probably to no other athletic field. The character of the terrain presented a very novel difficulty. Close along one side was a bank of the Iowa River. In this instance a structure that would overhang its support was necessary. On the opposite side the tracks of the Cedar Rapids-Iowa City Electric Railway presented a similar obstacle, being but ten feet from the supporting columns.

The investigation by Professor Lambert proved that added seating capacity could be secured only by cantilevering the structure over both the river and the railway, or by moving the field to some other location. The endeavor to meet this unusual condition led necessarily to the choice of the present design and material.

A brief description of the structure is herewith given.

On the river side a concrete wall supports the outer row of steel columns and their foundations are designed to support a second deck which may be built in the future. The main 24-inch supporting I-beams and the seat plates are designed with an adequate factor of safety. Wind bracing is provided in all directions. Over the electric railway the cantilever beams are 18-inch I-beams supported on 8-inch



Main Seat Plates and Supporting Beams, Cast Iron Seat Stools and Cypress Plank Seats. The Plates Were Bent Cold to a Short Radius with a Slope of About One-half Inch to Provide Drainage. Butt Joint Splice Plates Shown, to Which Additional Sections Can Be Connected.

H-columns. This side is also designed to support a future double deck.

The seat plates are of $\frac{3}{8}$ -inch "Armco" ingot iron, bent Z-shaped with 24-inch treads, and riveted together at the center of the riser with a lapped joint. The upper plate overlaps the lower, making the joint waterproof. The supporting I-beams are spaced seven feet on centers and the seat plates are butt-spliced over this beam and also bolted to its upper flange.

Because of its rust-resisting qualities, commercially pure "Armco" ingot iron was the material chosen for the seat plates.

The quality of this base metal, because of the careful processes used in its manufacture, assured that the seat plates would give the greatest service and prove the most economical in the long run.

The seats consist of 2x10-inch cypress planks supported on cast iron stools, to which the planks are

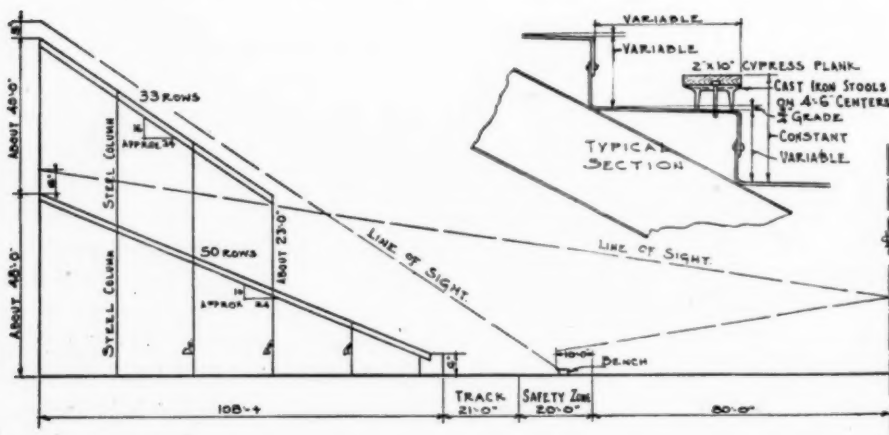


Diagram of Single and Double Deck Stand, Showing the Division of the Field, Sight Lines, Elevations and a Detail of the Seat Plates with Variable and Constant Dimensions.—Courtesy The American Architect.

bolted close to the edge to prevent cupping. The stools are placed 4 feet 6 inches on centers and are attached to the step plates by machine bolts screwed into tapped holes.

If it were desirable to change the pitch of the steps it readily could be done, preferably by changing the risers in groups of about ten seat plates. Whatever height of riser is used, the seat height can be maintained constant by varying the height of cast iron stools supporting the plank seats. The allowance of 18-inch seat width per person has proved to be very satisfactory for this kind of usage.

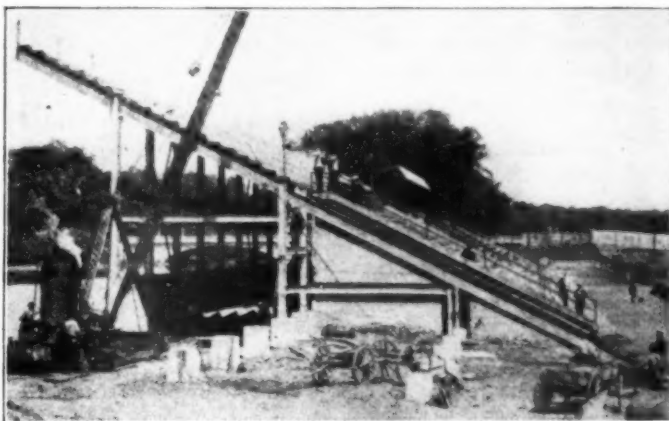
The danger of this type of stand being noisy was considered and its use showed that there was practically no noise whatever. The heavy plates have no tin pan effects; the shocks and noises are absorbed in the structure. This is due probably to its rigidity and weight. The structure was painted with an exterior lead and oil paint used for exposed steel structures. The unexposed surfaces probably will not require repainting in eight or ten years, while the exposed surfaces may require repainting every two or three years. This could be done economically with a mechanical spraying machine.

In this structure the seat plates were shipped shop-riveted in sections of three plates and the field connections between these sections were field-riveted. The different sections fitted very nicely in the field and the cost of erection was not far from \$10 per ton. There seems to be no good reason why field bolts could not be used with entire satis-

faction for all field connections. Round-headed bolts with lead washers were used to connect the plates to the beams.

One of the great advantages of this type of construction lies in the possibility of its ready removal to another site in case it was ever found necessary. In these days of rapid change it is easy to see that a field and stadium that are adequate now may be entirely inadequate in

construction, is approximately 100 pounds per seat of 18 inches. The cost of the metal in this stadium, fabricated, erected and painted, was about \$80 per ton, costing \$4 per seat. The cost of footings and seats was about \$1 per seat, making the total cost about \$5 per 18-inch seat. With steel at \$100 per ton fabricated, erected and painted, the cost would be about \$6 per 18-inch seat. Plates 5/16-inch thick would have



Erecting the River-Bank Section of the Grandstand.—Courtesy The American Architect.

ten years or so. In such cases the steel stands can be readily taken down and moved, added to or double decked—all with 100 per cent salvage. In case of reinforced concrete, the salvage is nothing and the expense of wrecking, removal and disposal of waste is considerable.

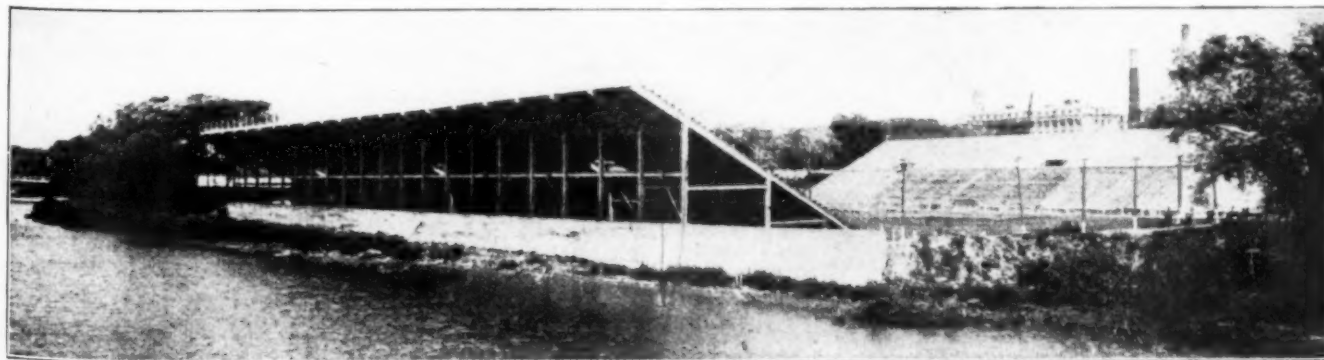
An architectural treatment can be secured by covering the rear with a frame of angle irons, metal lath and stucco. By this means almost any desired architectural effect may be secured.

The estimated weight of this structure complete, built of all-steel

sufficient strength to span 17 or 18 feet with a 12-inch riser and a 24-inch or more tread. This 1/16-inch thickness of plate represents a cost of about 60 cents per 18-inch seat with metal costing \$100 per ton.

This design has been patented and license to use the design will be granted for a nominal fee per seat constructed.

You may know enough about your business to make it a success, and yet you may need the stimulation of good trade paper editorials to make you do the best you know.



General View of the Stadium, Showing the River-Bank Section in the Foreground, the Back Seat of Which is Fifty Feet Above the Water.

Mr. Frye Takes the Sting Out of Brother Allen's Hornets and Aspires to Poet-Laureate.

TO AMERICAN ARTISAN:

To your readers who are interested in my problem of the circles, I wish to refer them to my original article, appearing on page 23 of the November 10th issue of the AMERICAN ARTISAN. In the example submitted in that problem three circles were added to a fourth necessitating only three spaces stepped off from the base line or one space for each circle added to another circle. In the so-called proof of error submitted by Mr. Allen, of South Dakota, in the issue of February 2, his example calls for four circles added to a fifth, and in this case as previously explained he should have stepped off four places from the base line or one space for each of the circles added to the four inch circle. Then in this case Brother Allen proves nothing, for he has overstepped the stepping proposition, and stepped off five spaces when only four should have been stepped off. Now if Brother Allen will reconstruct his problem with accuracy and in accordance with the previous explanation, he will find that he will get for his diameter of the large circle, 6 and 2/16 inches, which is as near to the absolute diameter as is possible to measure in sixteenths of an inch. Now, Brother Allen, you may be a crackerjack mathematician, but believe daddy, you are some bungler when it comes to following directions. However, we all make mistakes, so try it over again, Brother Allen, then "strutt your stuff."

Poetically speaking, Mr. Frye takes up the subject in a somewhat more humorous vein, all in fun, of course, as follows:

There was a young man from South Dakota,
Who said, "Now, Brother Harry,
I'll show you,
That figures don't lie,
And it's easy as pie,
And I will now proceed to expose you.

A pencil I'll take and dividers too,
And I'll pick you clean with a step
or two.

And prove you're a fake, while the
problem is before us,

By quoting my old friend, the Greek
Pythagoras.

I'll turn out my hornets and I'll
treat you rough,

And while they're stinging I'll
"strutt my stuff."

But then the young man from Tennessee,

Said, "Brother Allen, this cannot be.
For figures don't lie,

And it's easy as pie,

And the proof I'll show you, believe you me.

You juggled your figures, you're no
mathematician,

Just an ordinary juggler, a comic
magician.

Your trick is exposed; don't it make
you sore,

To know you used five when you
should have used four.

And now, Brother Allen, at you this
I fling,

Turn loose your hornets and let
them sting."

HARRY FRYE.

Tullahoma, Tennessee.

EDITOR'S NOTE.—Indeed, Mr. Frye, I am overjoyed at the amazing rapidity with which you have developed into a poet. Since your appearance upon the poetical horizon, I fear the possibilities of Edna St. Vincent Millay, the chic little poetess whose age has been the subject of so much discussion lately, and those of Douglas Malloch, that great beacon of truth, of becoming poet-laureate have been seriously jeopardized! if not entirely obliterated. Wonders will never cease! Keep up the good work, Mr. Frye!!

Have You an AMERICAN ARTISAN for December 9, 1922?

A letter from T. B. Callahan, 200 North Adolph Avenue, Akron, Ohio, has been received by the Editor of AMERICAN ARTISAN requesting him to forward a copy of the December 9th, 1922 issue. Unfor-

tunately our supply of that particular issue is exhausted.

Will some kind subscriber who has this issue forward it to AMERICAN ARTISAN or to Mr. Callahan direct?

Sheet Metal Contractors of Lafayette, Indiana, Celebrate 21st Anniversary with Banquet.

On February 6th the Sheet Metal Contractors' Association of Lafayette, Indiana, gave a banquet to its members and the following guests were present:

Joseph C. Gardner, Fred Wilkening, John C. Henley, Ellis C. Folkening, William Off, Paul R. Jordan, Phil Gietz, W. S. Waters, Joseph Mattingly, Thomas Lavery, Frank Doyle, E. W. Norman, O. Voorhees, all of Indianapolis.

This banquet was given to celebrate the Twenty-first Anniversary of the organization, which is the oldest local organization in the state.

A fine dinner was provided and everyone present enjoyed the spread greatly, and following this the toastmaster, John Balkema, called on each one present to make a brief talk. Congratulations were universal and hearty to this pioneer organization.

Songs and informal talks prevailed and a general social time with real merriment continued until 11:30 p. m.

Mr. and Mrs. William Walter, Lansing, Lose 9-Year Old Son.

The veil of sorrow has been suddenly drawn over the happy home of William Walter, Lansing, Michigan, President of the Lansing Sheet Metal Contractors' Association.

The 9-year-old son of President and Mrs. Walter died last week after a short illness, and the sympathy of the entire trade goes out to the bereaved parents in their hour of trial.

President Walter is well known not only in the local sheet metal trade, but throughout locals in Michigan and other states as well

Secretary Tonnsen Reports Proceedings of Sheet Metal Con- tractors Meeting of Milwaukee.

A meeting of the Sheet Metal Contractors' Association of Milwaukee was called to order by President John Millen at 8:15 p. m., February 6.

The regular order of business was dispensed with to give Building Inspector Harper an opportunity to explain Article 5 of the Milwaukee Code on Scaffolding. Mr. Harper gave a thorough explanation of the article, and proved it reduced the contractor's liability at a small inspection fee. The President thanked Mr. Harper for his very able address.

A representative from the *Milwaukee Sentinel* addressed the meeting on newspaper advertising.

The meeting then proceeded with its regular routine of business.

There were thirteen members present.

The minutes of the previous meeting were read and approved.

The report of the National Secretary was read and ordered placed on file.

A motion was made and seconded to accept the resignation of the Milwaukee Corrugating Company.

The membership of Eugene Stachowiah was ordered stricken from the roster.

O. H. Hoffmann was appointed a committee of one to visit the delinquent members.

The following bills were ordered paid: Stationery, \$19.25, and luncheon, \$19.85.

Springfield Sheet Metal Contractors Will Pay Fare to National Conven- tion as Premium for Attendance.

A novel idea has been put into effect by the Association of Sheet Metal Contractors of Springfield, Illinois, the object of which is to stimulate attendance at the meetings. At a recent meeting a resolution was introduced by J. C. Neuman, and adopted by those present, to the effect that every member attending the second meeting every month

after January 1st until the national convention in Washington next June shall have his railroad fare paid one way to the convention, provided his dues are paid up to May 1st.

Board for Jurisdictional Awards Will Meet in Pittsburgh, Monday, February 18th.

The National Board for Jurisdictional Awards will meet Monday, February 18th, at Fort Pitt Hotel, Pittsburgh, the meeting lasting for several days.

Among the matters to be considered is an application for a re-hearing of the Board's decision, rendered last year on Metal Trim (fire doors and hollow metal windows), by which the sheet metal contractors and their employees were awarded the right to erect this class of work. The carpenters have claimed it, but the Board turned them down, as was only right and proper.

Pittsburgh Sheet Metal Worker Wins \$3,000 Verdict Against Cleveland, Ohio, Union.

A sheet metal mechanic won a \$3,000 verdict against the Sheet Metal Workers' Local Union in Cleveland. Stephen J. Nalty presented a transfer card from the Pittsburgh Local, which the Cleveland Local refused to honor. Suit was brought against the Cleveland local union for \$8,300.00, which the plaintiff alleged he had been prevented from earning.

The business agent of the Cleveland local union stated that the reason the transfer card had not been accepted was that a number of members of the local were unemployed at the time the application was made.

Federal Judge D. C. Westhaver ruled that the failure of a local union to grant credentials to a member of another local constitutes a breach of contract, and as such gives the injured person ground for civil action. This decision undoubtedly set a precedent, and is significant. Until recently, courts have held that a union cannot be sued because it is

a voluntary association and not a corporation.

Notes and Queries

Eight Inch Fan.

From Mr. C. L. Epps, 207 North Washington Street, Van Wert, Ohio.

Where can I secure a six or eight paddle eight inch fan to fit on a five sixteenth shaft?

Ans.—American Blower Company, 140 South Dearborn Street; Ilg Electric Ventilating Company, 5 South Wabash Avenue; New York Blower Company, 2248 South Halsted Street—all of Chicago, Illinois.

Old Copper-Brass.

From Fitzgerald Hardware, Madison, South Dakota.

Who buys old copper-brass and bronzed metal?

Ans.—S. Birkenstein and Sons, 1056 W. North Avenue, Chicago, Illinois; Samors Company, 338 W. Phelps Street, Springfield, Missouri.

Electric Soldering Iron.

From Mr. George J. Weymuth, Cole Camp, Missouri.

Where can I get an electric soldering iron?

Ans.—American Electric Heater Company, Detroit, Michigan; Dover Manufacturing Company, Dover, Ohio; Apex Electric Company, 1410 W. 59th Street, Chicago, Illinois.

Top for Detroit Jewel Stove.

From Mr. John Balkema, 104 Main Street, LaFayette, Indiana.

Where can I secure a top with four lids to fit a Detroit Jewel Stove?

Ans.—The Detroit Stove Works, 2929 So. LaSalle Street, Chicago, Illinois.

Punch.

From Mr. C. R. Bradley, 420 Edgar Street, Kalamazoo, Michigan.

Who makes a punch for punching metal 14 gauge and lighter?

Ans.—Whitney Metal Tool Company; W. A. Whitney Manufacturing Company, both of Rockford, Illinois.

Ezy Way Oil Cook Stove.

From Dalquest Hardware, Centralia, Oklahoma.

Where can we get repairs for the Ezy Way Oil Cook Stove?

Ans.—Sears Roebuck and Company, Chicago, Illinois.

Window Display That Proved Its Merit by Tremendously Increasing Gift Sales.

Arranged by P. E. Fisher for Lilly Hardware Company, Indianapolis, Indiana — It Won Fourth Prize.

THE accompanying Thanksgiving window display of unusual merit won the fourth prize in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition, which closed January 12, 1924. It was arranged by P. E. Fisher for the Lilly Hardware Company, 114 to 118 East Washington Street, Indianapolis, Indiana, successors to Lilly and Stalmaker.

painted in a rich autumn brown, with a silver and gold mottled effect. The border was made of a darker brown and the stripes are of gold.

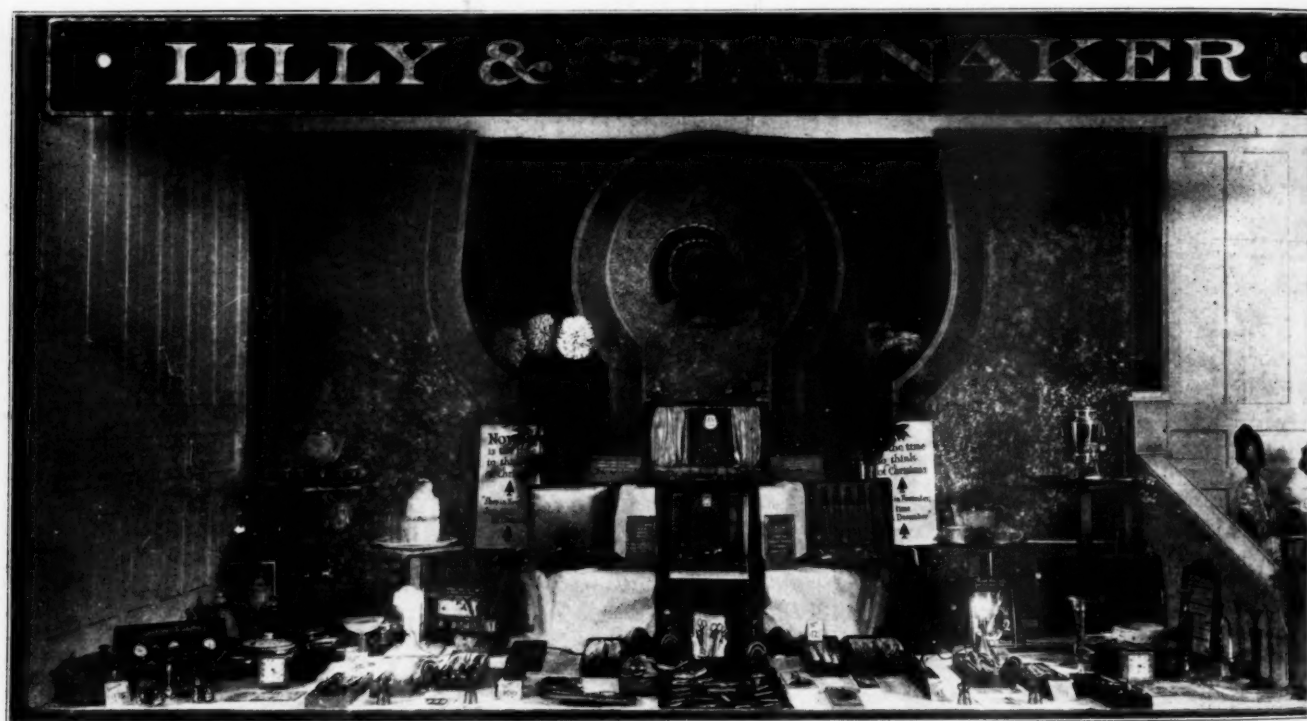
"The turkey in the center was life size and painted in original colors, having all the lustre and color of a real turkey.

"The black velvet draped between the panels with deep folds added to the richness and attractiveness of

ing touch of color. The cards 'Now is the time to think of Christmas,' brought out the idea to buy now."

There Is Only One Way to Establish Good Will.

There is no business asset comparable to a customer's good will. It is beyond price, for money will not purchase it. Only unremitting



Thanksgiving Window Display Which Created Tremendous Sales and Gave the Lilly Hardware Company, 114 to 118 East Washington Street, Indianapolis, Indiana, a Great Deal of Wholesome Publicity.

Mr. Fisher makes the following comment:

"The window emphasizes the Gifts of Utility idea in a hardware store. The items were selected which would best convey to the passerby and prospective customer, that here was a place where practical and useful gifts could be secured.

"While this picture does not begin to show up the background as it should, the background is, however, the feature of the window. Upson board was used, it being

the window, as the soft yellow lights used in illuminating at night produced a soft effect which appealed to the people. The business done on items shown in the window was tremendous. The floor and builtup center was covered with white velvet. The chrysanthemums used were in orange, red and purple all in color harmony, as were the price tags. Other small flowers were used in harmonizing colors. A narrow strip of orange velvet down the center of the window added the finish-

attention to all details affecting a customer's interest wins and retains it.

Good will is that which is built into a business in every day contact with the trade. It is the treatment accorded, month in and month out, year in and year out, that promotes it and conserves it. To the extent that a business house successfully practices the doctrine of the Golden Rule—to precisely that extent will it thrive and prosper and live to an indefinitely old age.

Optimism and Assurance Keynote of Pennsylvania and Atlantic Seaboard Opening Convention Meeting.

President Hugh F. McKnight Firm in His Conviction That Presidential Election Will Have Few Terrors for Business.

OPTIMISM and assurance that economic and business conditions warranted the prediction that the country is entering a period of real prosperity was the keynote of the opening session of the Twenty-Third Annual Convention and Exhibition of the Pennsylvania and Atlantic Seaboard Hardware Association, held at the Commercial Museum, Philadelphia, Tuesday, February 12.

The convention program opened Monday evening with a meeting in the Bellevue-Stratford Hotel Ball Room. President Hugh F. McKnight presided. Reverend Clarence E. Macartney, D. D., made the opening prayer, and City Statistician Davis, representing Mayor Kendrick, made an address of welcome.

Samuel M. Vauclain, President of the Baldwin Locomotive Works, Philadelphia, gave a general review of business conditions, beginning with a statement about Philadelphia's place in the hardware business and in industry generally. He said this was the first city in the world in regard to its individual enterprises and its manufactured products. Pennsylvania, he continued, showed herself to the Keystone State in the late war by the fact that more than one-fifth of the supplies came from this state and nine-tenths of the steel construction. More than one-fifth of all those who went from the United States overseas came from Pennsylvania, he said, and more than one-fifth of those who now rest in France permanently were Pennsylvanians.

As for the business situation, he denied that it was "wobbly." It couldn't be that with 1,000,000 loaded freight cars and all the railroads looking forward to an increase in business from 10 to 20 per cent. If the hardware business will push ahead in the right way

there will be 1,250,000 loaded cars, he predicted, within the next six months.

Harry Collins Spillman, of the Remington Typewriter Company of New York, spoke on "Adjusting Ourselves to a New Business Era." After the speaking there was music, dancing, getting acquainted and refreshments.

Tuesday, February 12.

Hugh F. McKnight, President of the association, in his report to the



Hugh F. McKnight,
Retiring President Atlantic Seaboard Hardware Association.

convention, predicted a banner year and said that business was on a firm basis of progress.

President Hugh F. McKnight's Annual Report.

The year just passed can be reported as one of progress. While our membership did not increase materially, part is due to fact that some members carelessly failed to pay their dues. Such delinquents must be dropped from our roll temporarily, because said dues in part cover subscription to our publication "Hardware News," and the U. S. Postal laws prohibit mailing of any publication when the subscription is not prepaid.

Exhibition Space Increased.

The exhibition last year from a sales standpoint was most successful and this year bids to outdo the 1923 results. Our space has been increased this year by the

removal of the dining room and in face of more cancellations than ever before, our entire floor has been sold for a month or more with a waiting list for any vacancies. This selling of space has been done without outside help except that necessary for mailing circulars and advertising. It behooves our members to purchase from our exhibitors, as it is only by so doing we can expect them to return to our exhibition floor. You realize that success in giving service to our membership is dependent on the success of the exhibition.

Local Associations and Field Service Activities.

Our local Associations are gradually becoming more numerous and with our group meetings becoming more frequent, we can expect additional local groups. At present, we have well organized locals at Pittsburgh, the daddy of them all, Philadelphia, Baltimore, North Jersey and Erie.

This department of our activities is growing rapidly in services rendered to our membership. Many of our members do not realize what Field Secretary Pearce can give in the way of service. Others do realize and know what can be done along this line, and are taking advantage of the many opportunities offered. It is my recommendation that, when in the opinion of your officers we can afford to put out another field man, this be done—for there is too vast a territory for one man to cover properly. Numerous group meetings have been held this year with greater success than ever before. Of these you will hear later from Mr. Pearce.

Price Service Established.

For some years past, there has been an insistent demand for a price service. After much thought and several failures, a satisfactory service was arranged for the latter part of the past year. More than 200 members have availed themselves with this service which entirely conforms with the law, and thus far has been eminently satisfactory. It applies to any part of our territory and should prove invaluable to our membership.

The past year has been one of success to most merchants, and 1924 bids fair to outstrip 1923 in this respect. Prices in the main have been stable. Price changes have been mainly downward, and as you doubtless know, we are likely to be on a declining market for some years to come. Quite a few new lists have been issued the past year on bolts, cap screws, and goods of like class. This has been occasioned by new extras for sizes on bars and rods having been established by the manufacturers of steel materials. Any dealer not keeping up to date with his lists, will have his eyes opened by higher prices when his replace orders are invoiced. This applies to stove, machine, and carriage bolts, lag or coach screws, cap screws, set screws, and similar items. The increases on cap screws and set

screws seem unreasonably large, but as a general rule the manufacturers make such changes after exhaustive cost investigations so that they know what they are doing. The past year, I had a dentist tell me a small hardware dealer in his town was a poor business man because he saw him mark up his stock on hand immediately after the dealer had received notice of an increase on a certain item. I claim, and said so at the time, the dealer was entirely correct, and had the price change been a reduction and against the dealer, the change should have been made just as quickly. This is a good reason for our members to have the price service just mentioned and by it be kept up to date.

Our country is particularly fortunate in that we have had stability in hardware prices and absence of inflation in face of the large gold reserves held in the United States. Our basic industries seem to be on a firm basis of progress as evidenced by steel, copper, and oil. The foreign situation seems more hopeful, and if we of the United States can, with safety, export more goods, the gold reserves we hold can be diminished with consequent safety to our industries and general trade conditions.

Compliments Association's Official Family.

Your President would be withholding credit where credit is due if he did not acknowledge the helpfulness of the official family of the P. A. S. H. A. during his term of office. Their counsel was freely given, and their time as well when called upon for service. Your secretary, Sharon E. Jones, is an iron man and performs the arduous duties of his office without complaint. Some criticism was made when our office was transferred to Philadelphia. This change was much against my wishes, but the arguments for the change were so convincing that my vote went for the transfer. Since the transfer, the wisdom of the change has been proven again and again. Our Secretary is in the center of our territory making the membership more accessible. This is proven by the number of our requests for field service having multiplied some five times over the previous year.

The duties of your President the past year have been those of enjoyment in the furtherance of the aims and objects of your Association. In the future, I can look back on my year of service with satisfaction and pleasure at having had the highest office and honor you can give a member.

Sharon E. Jones, Secretary of the association, announced that the association would begin shortly a drive for 2,500 new members. He also urged that the convention and exhibition here next year be extended to a full week and be held during the third week of February to enable greater preparation.

Charles C. Parlin, Business Research Expert, said that the bank clearings of last year had been the greatest of any year excepting the peak year of 1920.

"There has also been the greatest

era of car loading the past year," he said. "We have had during that time the largest construction period and we have by no means used up the power that was behind that expansion. Even the foreign markets thought weak, show a stability that is encouraging.

"There was also a high level of employment last year that is likely to rise during the coming year. There has been an unusually high level of wages, high in the point of



B. Frank Antrim,
President-Elect Atlantic Seaboard
Hardware Association.

commodity value. The net result is a substantial condition for all markets. Farming conditions are good and we can look forward with confidence to a superior year of business.

"There has been a marvelous development in increased incomes. Comparing 1917 with 1921, there were nearly three times as many persons with incomes of from \$2,000 to \$3,000, and an increase of 43 per cent in persons with an income over \$25,000. Comparing 1915 with 1921, there were eight times as many persons whose incomes in the latter year ran between \$3,000 and \$5,000, nearly three times as many varying from \$5,000 to \$10,000, and more than twice as many whose incomes totaled from \$10,000 to \$25,000.

"There has also been a marvelous advance in higher education, there-

by greatly increasing the market for advertising. The automobile to carry buyers to any market they chose has also made for a healthy condition. In Kansas, for instance, 83 per cent of the farmers now own their own cars."

Mr. Parlin urged the hardware men to *advertise* extensively and carry well advertised articles if they wished to more substantially increase their business.

Tuesday afternoon was observed as Ladies' Day at the convention. There was an entertainment, a tea and radio concert.

Sharon E. Jones announced that nine ladies, all running their own hardware businesses, had joined the association during the past year.

Attendance figures Tuesday indicated that last year's figures of 50,000 would be eclipsed. There are 100,000 articles on exhibition, representing the products of 1,000 manufacturers from all parts of the United States and Canada, and 2,000 dealers represented. Buyers from all parts of the world were reported as active on the floor of the exhibition during the day.

Wednesday, February 13.

Wednesday's session of the convention opened in the Convention Hall with President McKnight presiding.

H. P. Sheets, Secretary and Treasurer of the National Retail Hardware Association, opened the meeting with an address on "Waste." "Capital tied up in obsolete and slow moving merchandise has little opportunity to earn a profit; and profit is the objective of business investment," said Mr. Sheets. "Increasing stock-turn makes the money invested in the business work harder and earn more and reduces the shrinkage of values which is always an important factor in merchandising.

"In 1922 retail hardware sales averaged \$51,911, with operating costs of \$11,195, and a profit of \$1,366. The average stock investment was \$17,263 and the stock-turn 2.28 times.

"Had the stock-turn been doubled, with the same volume of sales, the

stock investment would have been reduced by half, and the profit increased to 2,316. Surely such results are worth striving for, and ought not to be difficult of accomplishment." Secretary Sheet's address will appear in a later issue.

"The Decimal System" was taken up by Murray Sargent, Sargent & Company, New Haven, Connecticut. "Does it cost too much to make the change?" said Mr. Sargent. "The change can be made with a relatively nominal expense. My own company with approximately 30,000 different items made the change at a cost, the interest on which would approximate what we would pay an average inexperienced clerk. We employ considerably more than 3,000 people. It is fair to assume that the same ratio of expense would apply to other manufacturers, which would mean that the whole investment for the average establishment would be a few hundred dollars. The cost is an initial one, the advantages are many and are permanent." This address will also be published at a later date in its entirety.

A luncheon to members and wives, followed by cards, Mah Jongg and sight-seeing tours took up the afternoon. The evening was spent in a theatre party at the Chestnut Street Opera House.

Thursday, February 14.

The subject of "Distribution" was again taken up at the Thursday morning session. The three factors concerned were discussed—manufacturer, wholesaler and retailer.

Robert J. Murray, Honesdale, Pennsylvania, spoke on the retailers' side of the question. This address will be published in a later issue.

A discussion and question box took up the remainder of the morning.

At 2:00 p. m. a theatre party for members' wives and registered guests was staged at the new Fox Theatre, Market and 16th Street, Philadelphia's newest and most handsome theatre.

At 8:30 p. m. a ball was held under the direction of the Retail Hard-

ware Association of Philadelphia, and between the dancing numbers a program of high-class entertainment was provided.

Friday, February 15.

B. Christianson, Stevens Point, Wisconsin, spoke on "What, if anything is the matter with hardware retailing?"

A discussion of the subject followed this address.



Sharon E. Jones,
Re-elected Secretary-Treasurer,
Atlantic Seaboard
Hardware Association.

Election of Officers.

The following named men were placed in office:

President—B. Frank Antrim.

First Vice-president—John A. Ditz.

Second Vice-president—Robert J. Murray.

Third Vice-president—Harry D. Kaiser.

Secretary-Treasurer—Sharon E. Jones.

Philadelphia Side Lights

The floor of the Commercial Museum was transformed into a veritable department store, where every article in the hardware line was displayed by 450 exhibitors.

Thumbtacks took their place beside large mechanical devices, and toy stoves were contracted to large residential heating plants. Articles

of every description made of wood and steel were on display. Steel tools made of carvan steel, which is a composition of carbon and vanadium, were demonstrated, to the amazement of onlookers.

The largest and most attractive exhibit was that of a large hardware house in this city. The exhibit comprised a view of East River drive, in Fairmount Park, showing the motor cars passing along and canoes and boats floating along in the Schuylkill. Hovering over the scene was the largest dirigible, Shenandoah. This exhibit was carried by an extensive line of automobile accessories.

The entertainment program was arranged by Mr. and Mrs. Harry D. Kaiser and kept the ladies busy afternoon and evening.

Secretary-Treasurer Sharon E. Jones' report was delightfully received and showed the rapid progress of the Association in the past year. Sharon E. was one of the most likable men at the show and was never alone. His assistant, W. G. Pearce, is surely a live wire—hustle-bustle day and night. When anything goes wrong, look up W. G. and he'll have it fixed.

Every day in every way the Philadelphia and Atlantic Seaboard Hardware Association, Inc., is getting better and better. This is due to the coöperation of manufacturer, jobber and dealer. The membership of the Retail Hardware Association is now in excess of 22,000. The Convention and Exhibition is conclusive proof that the dealer realizes its great importance, and this was proved by the steady stream of conventionites.

One of the many manufacturers to display its product for the first time is the Hall-Neal Furnace Company, Indianapolis, Indiana. Their booth was attractively decorated and their "Victor" furnace got quite a little attention. Charles E. Hall, Harry W. Neal and John M. Reynolds of Tyrone, Pennsylvania, were at the booth.

The CopperClad Malleable Range Company, St. Louis, Missouri, had an inviting booth, with C. D. John-

son in charge, assisted by C. W. Bischof.

W. E. Lamneck Company, Columbus, Ohio, displayed their well-known Lamneck pipe and fittings. A. P. Lamneck, who is covering this exhibition, is looking for a record year. He says business is fine, with no kick.

L. J. Mueller Furnace Company, Milwaukee, Wisconsin, made a wonderful display of their furnaces and registers. H. P. Mueller, Sales Director, assisted by George Horner, J. B. Vance and C. L. Hewitt, were kept busy, and it looks like a big year.

The Abram Cox Stove Company, Philadelphia, Pennsylvania, had a double booth to display their ware. Bill Thompson said he'd need the entire floor for their complete line. With him were J. Ellis and Bob Owen.

The Fox Furnace Company (Sunbeam), Elyria, Ohio, had a business-getting booth. Ed Miller surely is a live wire and knows his job.

The Klein Stove Company of Philadelphia, Eastern distributors for A-B gas range, Leonard refrigerator and Keeley Stove Company, also exclusive distributors for Caloric Stove Company, were represented by Nathan and Harry Klein, D. M. Crawford and last but not least, our old friends, Bill Habicht and James McGaw.

Peck, Stow & Wilcox, owing to the success of last year, displayed their products in two booths. It was the most elaborate display on the floor. The Pexto people make three distinct classes of tools—tinner's tools, machine hand tools and builders' and associate hardware tools, the latter being made in their Cleveland factory. S. S. Rand, Sales Manager, sincerely believes this year's sales will far exceed last year. His opinion is that the "Pasha" convention is the best business getter in the country. Mr. Rand was ably assisted by Louis Broemel, Sales Manager, machine metal works department, W. K. Hughes, H. R. Perkins, John F. Dolan, F. S. Foster and Elmer.

The Lennox Furnace Company, Marshalltown, Iowa, and Syracuse, New York, displayed three types of their furnaces and their booth had many visitors during the week. It is the purpose of the concern to duplicate their Marshalltown plant in Syracuse. Mr. C. H. Schechter, Eastern Sales Manager, has developed considerable business in the territory east of Ohio. They have twelve knights of road selling Lennox furnaces, six in New York state, two in New England, two in Pennsylvania and two in the South Atlantic states. B. C. Taylor, Assistant Secretary and Treasurer, is the big chief in Syracuse, and he, too, sees a rosy future for the Lennox in the East. In addition to the above boosters at the booth were J. Deane Davis and Frank F. Powderly.

The Weir Stove Company, Taunton, Massachusetts, displayed a good line of Glennwood Ranges.

The Du-all Manufacturing Company displayed a full line of the reversible mops and Du-all dusters. A mechanical operator demonstrated the venerable mop to perfection. O. R. Claus was in charge of booth and closed up many new dealers.

The Waterman-Waterbury booth seemed to be the center of attraction. Everyone who visited it was treated royally. Fancy silk shaded lamps made one feel at home. Three types of the W. W. were displayed and made quite a hit with the trade. F. G. Sedgwick, Vice-President, and H. G. Codes, Secretary, were assisted by E. S. Comstock, New York, J. H. Lowell, Massachusetts, S. J. Butts, William Scott, Pennsylvania. The New England territory has recently been opened.

E. Lamneck was a booster in the convention hall.

Jazz band furnished some real jazz and Paul Whitman or Vincent Lopez had nothing on it.

The exhibition was open to the public after 6:30 p. m. and every night throngs came to inspect the wares of the 1,000 odd firms. Every exhibitor had a broad smile which meant complete satisfaction. The Pasha exhibit and convention is

known as the capital T sales convention.

Among those seen on the exhibit floor were R. E. Walker, Meyer Furnace Company, Peoria, Illinois, and J. E. Flavelle with exhibits.

Ritter Brothers Company, Philadelphia, displayed a miniature house of zinc featuring the renowned Horsehead, New Jersey, zinc leaders and gutters.

The Cooperative Foundry and Red Cross Range booth was a busy spot at the convention. The firm's progress is due to the efforts of its president, Frank N. Brayer. Those familiar to the dealers at the booth were Herbert V. Jennings, George E. Barker, Sales Manager, J. J. Culligan, Advertising Manager, J. W. Boyd, M. C. Cole and C. W. Kinder.

The Peerless Foundry Company was represented by J. R. Strahlendorf, who was a busy man at the exhibit. They will have a surprise for the trade in the late spring.

Haynes-Langenberg Manufacturing Company occupied booth 108. "E. B." is well known at all conventions and surely is an order getter for his products. The company is the maker of the original steel furnace. E. B. Langenberg and W. E. Keist represented the firm at the booth.

Corporations Get More Time for Income Returns.

The internal revenue bureau February 14 announced an extension to June 15 of the date for filing tax returns of domestic corporations. Representations had been made by many concerns that they could not complete the preparation of returns in time to file by March 15.

Knowledge is power. Read your trade paper carefully. You will find lots of worth-while suggestions in it. The experiences of successful dealers recorded in it will be inspiring and helpful. Perhaps you have developed a selling idea, or pulled off some merchandising stunt that your fellow dealers could adopt. Tell us about it. We will pass it along.

Iowa Retail Hardware Men Assemble at Des Moines for Twenty-sixth Annual Convention.

President Knutson Urges Closer Coöperation in Retail Hardware Trade at Meeting February 12 to 15.

WHILE exhibitors were busy arranging their displays Tuesday, February 12, members of the Iowa Retail Hardware Association held the opening session of the convention in the Venetian Room of the Hotel Savery. More than 350 members had already registered at noon of the first day, presaging the largest attendance and best convention ever held by the association, it was stated by J. M. Krewson of Bloomfield, Iowa, Chairman of the Publicity Committee.

Coöperation Urged.

Distribution of costs and the need for closer coöperation in the retail hardware trade formed some of the important topics discussed at the morning session, which was opened with the annual address by President C. A. Knutson, Clear Lake. The President's address was preceded by a song service which brought those attending into an excellent frame of mind before beginning.

The Question Box was in charge of L. C. Abbott, W. D. Hunt and E. M. Healey.

George M. Gray, Coshocton, Ohio, Vice-President of the National Retail Hardware Association, urged upon the members the importance of a knowledge of the needs of the customer, as well as familiarity with the stock on hand in the store. "Salesmanship" was the subject of his address.

Vice-President Gray's address will be published under a separate head in another issue.

No business session was held in the afternoon, as the exhibits at the Coliseum held the entire attention for afternoon and evening.

Asserting that the annual waste in industry is far more than it should be and that this condition is largely responsible for the excessive costs of various products to the consumer,

O. A. Brock, of the Keystone Steel and Wire Company, Peoria, Illinois, pleaded with retail hardware dealers Wednesday forenoon to do everything possible to bring about standardization of articles of the hardware trade.

Wednesday's session was marked by various changes in the originally planned program, due to the non-



C. A. Knutson,
Re-elected President, Iowa Retail
Hardware Association.

arrival of several of the scheduled speakers. A. A. Dodd, who had planned to talk to the visitors about "The Budget Idea in Business," was detained at Washington by pressing business of the United States Chamber of Commerce, with which he is affiliated.

Perry Nichols, of the National Retail Hardware Association, substituted for him on the program, and went to great lengths to explain to the delegates the necessity of more simplification in the hardware business.

Mr. Brock, in the course of his remarks, said: "The work of the Department of Commerce of the United States in attempting to bring about the elimination of waste in

industry should have the complete support of all of you gentlemen. It is an indisputable fact that the waste by fire in our nation is less than 5 per cent of the loss by waste in industry. Isn't such waste a deplorable situation?"

"The principle of simplification is now being applied to important industries also," he pointed out.

"This is nothing more than the elimination of unnecessary sizes and varieties, which absorb your capital in non-profitable merchandise and delay your turnover. Some of the most successful mercantile organizations are based upon the idea of rapid turnover and not as seems to be popularly believed, upon buying in large quantities and thus carrying very low prices."

A. R. Sale, Secretary of the association, said a telegram had been received from G. A. Garver of Strasburg, Ohio, in which the latter said he would be unable to appear before the dealers Wednesday, but would arrive here early Thursday and would speak at that time if satisfactory.

Women members of the Ladies' Auxiliary of the association flocked to the Coliseum en masse Wednesday afternoon to inspect the gaily decorated booths of the exhibitors.

Thursday, February 14.

The Thursday morning meeting opened with much singing from the assembly.

Then the Question Box was opened and lively discussion followed.

The address on "Building a Million Dollar Business in a Town of 1,000," was given by G. A. Garver, Strasburg, Ohio.

Then came the "Symposium on Distribution," in which R. H. Cowdery took the side of the manufacturer. Mr. Cowdery's address will

appear in the near future, due to a lack of space.

Alexander Karr, American Community Association, Chicago, spoke on how vital to business was rural community leadership.

The Auxiliary officers were elected Thursday.

Friday, February 15.

The opening session Friday morning was in the Florentine Room of Hotel Savery, and concerned itself with the insurance department.

This was followed by the insurance question box and a round table conference.

A. C. Ryczek addressed the assembly on "Our New Store Service Department."

He was followed by A. R. Sale, who then made the annual report of the Secretary.

Excerpts of Secretary's Annual Report.

We seem to be living in a time of monumental disturbances, physical, political and spiritual. European influences seem to be broadcasted to our shores and permeate our body politic. Disorganization, bankruptcy, social demoralization radiate an unsettled condition in our midst. As a leading journalist observer says: "We seem to live in an age of political surprises, ultimatums, oily diplomacy, clandestine finance, jazzy music, rainbow-hued mendacity and her brood of vicious propaganda and demoralization."

Our Insurance Department feels the shocks of an unsettled world equally with the Trade Department.

Reviewing the history of our associated life, we find each period, nearly each year, a new and varying environment, a differing set of problems to be solved.

One of the outstanding events of the year in Association circles is the endorsement by the Secretary of Commerce, Herbert Hoover, of trade associations and their work.

The definitions given to a trade association as recognized by the department is as follows:

"A trade association is an organization of producers or distributors of a commodity or service upon a mutual basis for the purpose of promoting the business of its industry or commerce and improving its service to the public."

The purpose and aim of a trade association then is to deal with all questions of general application in the branch of industry or commerce it serves and so develop its field that the enterprises in it may be conducted with the greatest efficiency and economy.

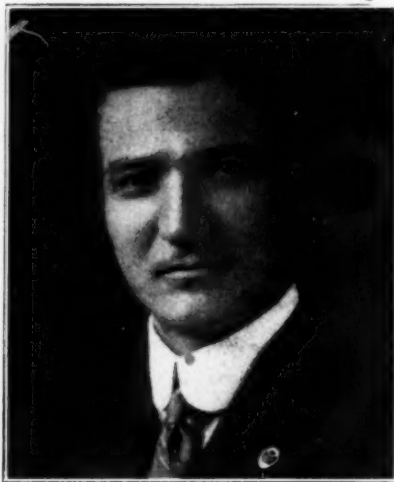
One function of a trade association is said by them to be *statistical* in making records of their transactions for comparisons and estimates. The only standard for business men to formulate their future plans and accurately know the results of their transactions is by accurate records and compilations by means of statistical service. This statistical work is deemed to be one of the highest func-

tions for producer, distributor and consumer.

Another great accomplishment of trade associations is in the line of procuring beneficial legislation. Secretary Hoover distinctly says that they have made very definite, comprehensive and successful results in procuring necessary legislation in both National and State Legislatures.

Another phase of Association work commented on by the Secretary is the great elimination of waste by *simplification* and *standardization*. The very large movement in this direction is one of the most prominent and efficacious means for reducing the margins between producers and consumers, and but little progress can be made without the collective action of the Association.

The study of *Credits and Collections* through the means of associations is considered another highly important activity. The rules and regulations of fair play as shown in the Codes of Ethics have demonstrated the real accomplishments



W. F. Mueller,
Re-elected Vice-President, Iowa Retail
Hardware Association.

of trade associations in the direction of better business.

The Twenty-Fourth Annual meeting of the National Association convened in Richmond, Virginia, on June 19-22.

The convention was peculiar in the fact that there was only one subject discussed—Distribution, or How to Make a Consumer's Dollar Do More. Every address was based on some element of that great topic, which you notice is stressed in our program at this convention.

Secretary Sheets, in opening his report, stated that distribution costs is the outstanding problem confronting business.

President Black, of the Manufacturers' Association, stated in his talk that the wholesaler's average cost was 20 per cent and the retailer's was 21 per cent, and these loadings added to the cost of production and transportation of raw materials makes an extremely high loading for the consumer by the time the profit loadings are added in each department.

The resolution passed by the convention voiced the fact that only by coöperation was it possible to lower the cost of distribution and that every factor in the chain of distribution must coöperate to secure more reasonable prices to the consuming public.

Another outstanding accomplishment in 1923 Association records is that of the publication by the N. R. H. A. of the survey of the cost of doing business in 1,068 hardware stores of the United States in 1922. It is said to be the most comprehensive survey ever made in our field of operation. The tabulated results show that operating expense for the average hardware store was 21.56 per cent and that the average profit was 2.64 per cent.

The results of this survey of Expense-Margin-Profit was published in a 32-page pamphlet and a copy sent out to each member. It should be a handbook and guide to everyone who wishes to compare his own business with that of his fellow merchants.

The tables are so prepared that every store of similar size in sales volume and in towns of same population may be compared.

The expense account is classified under twenty-one heads.

Following the tabulated comparisons of expense items, there is a comparative study of each group of states as compared with the figures for the entire report.

Iowa contributed to this survey the records of forty-four stores, or a little above the average of the states participating.

We trust a much better percentage will be recorded for the 1923 survey, which is now being made.

The value of these records is certainly of the highest character to every member, and it is only by coöperating with the National office that the results are obtainable.

They expect us to multiply the returns for 1923 by ten. That would be only 440 for Iowa. Certainly we have more than that whose books will furnish the figures requested and a few hours will fill the blank.

If you hesitate about giving these intimate records, remember that only one person sees the name on the report and that is detached and put away for reference, should any explanation be needed.

Your coöperation in this wonderful work will help make it a larger success and of still greater value to the 22,000 people in our affiliated associations.

Hardware Report.

After three years of experimenting on a plan of carrying the work of the Association to the member stores, it has been decided to give up the combination of Store Service and Insurance and concentrate on the Service Department.

To this end, A. C. Ryczek, of Milwaukee, has been engaged to make a canvass of the state, calling on the members to advise with them on the various departments of Store Service now being emphasized by the National office and in a number of our most progressive associations. He has been engaged since January 1st in making a survey of the association work being carried on in Wisconsin by Assistant Secretary Christianson and his assistants.

It would be well for any of our members that have problems of store service in stock arrangement, accounting, collections, window displays, advertising or any other of the departments of store service, to write to Mr. Ryczek in care of the office, in order that he may be able to plan his work to give your request his early attention.

Insurance Report.

In the printed report which will be mailed to you after the convention we will present the tabulation of the statistics for the twenty-one year period, showing the continued steady growth and development of our company.

This table presents for your consideration the comparison year by year of the writings, the gross receipts, the losses, the dividends and the assets. It exhibits a consistent and judicious progress of your company, operated from the standpoint of a department of the parent organization by whom it was created. A service primarily to the membership of the Iowa Retail Hardware Association and such other Association people in other states as may wish to avail themselves of its insurance indemnity.

Some of the hardware mutuals have not preserved their original form as constituent parts of the trade association by whom they were created. We find them with a staff of branch managers and a large corps of agents, with field supervisors and branch offices covering the entire territory of the United States and Canada.

The success of the hardware mutual plan has been such that the popularity of its work was a ready incentive to the ambitions of the management to build big and large and develop immense national organizations whose writings are now running into the hundreds of millions with assets of many millions. The branch offices of a number of these mutuals are each writing more business than some of the conservative companies which have remained true to their original plan of organization.

From the standpoint of business analogy and history, a final merger of the independent state units would seem to be the most logical development. In fact, the process of coalescing has almost been accomplished by a number of the companies who have independent state organizations, but who unite in the conduct of the nation-wide business, and even issue a common policy underwritten by each company.

The writings and assets of these merged companies, with their palatial home-office buildings, large field forces, extensive branch organizations, all maintained and controlled by a unified management, far exceed the holdings of all the other companies in the entire group of hardware mutuals.

Thus by a gradual method the smaller organizations will find themselves but the passive units in a dominating combination and the adoption of the uniform and name will eventually be but a perfunctory act.

When the final merger shall have been accomplished the question of ownership and vested interests may bring a note of discord, but here again the momentum of the mass will mangle out the wrinkles of the minor objectors.

We will present in a printed report a tabulation showing the comparative statistics of the hardware mutual group.

Noting the figures in our own table, we find for 1923 an increase in insurance in force of \$1,200,000, approximately 10 per cent.

The assets of the company show a slight shrinkage of \$2,500, which is explained in the next comparison.

The losses paid, \$102,271.31, show an increase over 1922 of \$26,780, and 1922 was the second in the list of heavy loss years. Compared with 1920 and 1921,

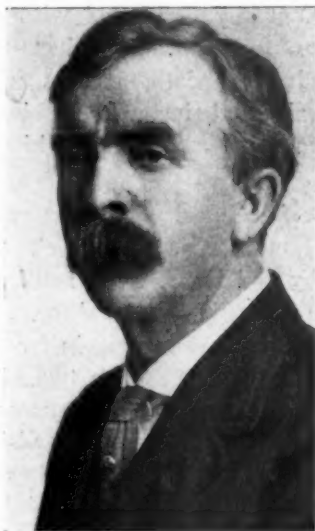
1923 nearly equals the losses for both those years. Compared with 1919, they nearly equal four times the amount paid in that year.

The total receipts for the twenty-one year period are \$2,250,000; total losses paid, \$805,500; total dividends paid, \$850,000; assets are \$300,000, in round numbers.

Combining the losses and dividends paid with the assets, show the total operating expense of \$14,000 per annum, or an average of 13 per cent, which is just about one-half the expense of operating the average hardware store, as shown by the survey made by the National office in 1922.

Our assets show, as compared with the insurance in force, that for each one thousand of insurance written we have \$20.83 in cash to liquidate our claims. This amount, compared with the very strongest stock companies, is very satisfactory.

From a list of nine stock companies of the largest class whose coverage is in



A. R. Sale,
Secretary-Treasurer, Iowa
Retail Hardware Association.

excess of seventeen billions, with assets of 186 millions of dollars, we find for each \$1,000 policy written they have cash assets of \$11.73.

Compare this with our \$20.83 and we should feel that our protection is ample and our indemnity safe beyond question.

The printed financial report, January 1, 1924, with a multigraphed list of losses for 1923, classified by states and premiums received, is prepared for your information.

Appreciating your courteous reception of this rambling report, the same is duly submitted for your further consideration.

Election of Officers.

Committee reports and election of officers followed, the latter resulting in the re-election of the old officers.

The directors were elected as follows:

District one—Thomas Nichols, Burlington.

District three—George W. Healy, Jr., Dubuque.

District five—Frank Slabock, Jr.

District seven—C. T. Gadd, Des Moines.

District nine—Albert Bojens, Atlantic.

District eleven—C. B. Hill, Spirit Lake.

The constitution was amended so as to make the yearly dues \$10.00, instead of \$5.00; and the acceptance to associated membership of hardware wholesalers, manufacturers and also dealers carrying some hardware or kindred lines, which includes plumbing, sheet metal, furnace dealers. The dues are \$5.00, with insurance privileges, but not vote.

In the afternoon the Board of Directors held an organization meeting.

Ladies Royally Entertained.

The visiting women whose husbands were attending the convention were entertained extensively during their stay in Des Moines. Mrs. C. A. Knudson was chairman of the local committee in charge.

Thursday's program for the visitors included an address by Mrs. I. H. Tomlinson in the mezzanine parlor of Hotel Savery. Mrs. Tomlinson, who spoke in the morning, had as her subject, "The Present Status of Women."

Among the women who attended the convention were Mesdames W. H. Miller of Fairbank, Albert Bojens of Atlantic, E. E. Brenner of Marshalltown, D. E. Johnson of Zeoring, E. E. Beatty of Greenfield, J. H. Katt of Rock Rapids, C. B. Bjornsted of Spencer, F. W. Triplett of Clear Lake, Ed Healy of Dubuque, M. B. Richardson, R. C. Cook of Orange City, Clarence Peterson of Iowa Falls, and C. O. Falland of Cambridge.

Seen and Heard In Des Moines

The "Pointer" man, C. F. Ravenscroft, was tickled almost to the steenth degree Tuesday morning because he received a wire from New Albany, Indiana, that the "big boss,"

Charlie Gohmann, was coming up to Des Moines to help him look after the stove merchants who wanted to buy those "Dog-on-Good" kitchen ranges. Charlie says that he has solved the problem of making a good range at a really low price. He makes only one style, but you can buy it in plain, in all enamel and in enamel and nickel trimmed effects.

V. H. Kurtz, western representative of the Thatcher Furnace Company, was assisted by A. H. Berridge, of the Leighton Supply Company, Fort Dodge, their local jobbing house, and D. E. Cummings, Manager of the Chicago and Western territory, was also on hand for a couple of days.

Bill Harms is getting to be a familiar figure at the hardware shows. He surely covers a lot of territory. One week he is in Indiana, next in Wisconsin, then in Iowa. He will be in Chicago at the Illinois convention, and he never runs dry when he talks about the Rock Island warm air registers, waxing especially enthusiastic about their new oxidized brass finish.

The "old man," B. H., and "the boy," Blair Quick, together with Archie Meston, Louis Roos, W. E. Richardson and C. B. Noyes, almost filled the aisle in front of the fine display of the Quick Furnace Supply Company, where Quick heaters, Buck furnaces, H. & C. registers and Lamneck furnace pipes and fittings were shown. Those fellows certainly know a lot of furnace men, and they know how to sell them, too.

Marshalltown Manufacturing Company and Victor Heater Company shared a booth in which E. L. Williams and C. V. Ware told about throatless shears and W. J. Fiola and D. E. McVay demonstrated the merits of the Victor cast furnace and the Marshalltown steel furnace.

Pete Johnson says that he does not care much who sells single furnace pipe so long as he can sell as many Champion double stacks as he does. He had his overcoat hung up in the big exhibit of the Green furnace folks, and at one end of this the entire wall was taken up with

samples of Champion pipes and fittings.

Out in Iowa there are lots of stove merchants who have been selling Estate ranges and Heatrolas ever since George E. Arndt first began to "make" that state, and so long as George stays out there anybody will have a hard job taking any of his customers away from him.

Edson Perry, J. R. Morganson and P. E. Sauerwine (he must come from somewhere near the Rhineland) have a lot of friends among the hardware men who use or sell sheet metal, for the fine exhibit booth of the Milwaukee Corrugating Company was filled with customers for Milcor products—extended metal lath, gutters, ridge rolls, zinc and zinc covered shingles, copper shingles and other kindred items.

"Doc" Hinds, Roy Wasson, E. W. Hunter, F. J. Kiesel, Will Dahlby and D. C. Rock acted as a sort of reception committee. The Lennox booth was right in front of the main entrance, with two nicely painted "Torrid Zone" furnaces on display. There were few visitors who did not stop to say "Howdy," and many of them did the obliging marking on the dotted line.

The famous Quick Meal enameled ranges and oil cook stoves with the Lorain oil burner were displayed and demonstrated thoroughly by A. L. Grossman and S. M. Shaffer, who felt quite at home, as they had lots of callers.

G. S. Moss said that he found it more convenient to bring a beautiful aluminum model of the Wiechert furnace than to bother about shipping a full-sized one by freight, as all he had to do to sell them was to point out their nice, workmanlike finish and the attractive price at which they are sold in order to fill his order book and thus obtain a new one from the St. Clair Foundry Corporation.

Gould Richards, W. B. Ross and C. C. Miller had a busy time showing the fine line of Monarch coal ranges and Paramount gas, combination and electric ranges. Gould

says that all you have to do to sell ranges is to pick a good line, get thoroughly "sold" on it, and the housewives will be waiting for you to come in and tell them how well it will bake and roast—and they will put down their money. At any rate, he says, that is what A. C. Eatinger, Orient, Iowa, tells him.

"Buck" (E. C.) Taylor and his Iowa salesman, H. L. Frey (pronounced Fray), put in many a good word for Premier warm air heaters. "Buck" is a fine fellow, but he is free to admit that the Editor's walking stick makes him look considerably more impressive.

R. A. Walker and W. F. Menk did their best to take care of the visitors who wanted to buy Excelsior furnaces and fittings. If they did not send in all the orders they might it was only because they had only two hands apiece.

Walter M. Bivens did not have a Front Rank furnace with him to show to prospective customers, but he talked to them, and if anybody should ask you, Walter knows how to talk so as to get the signature on the dotted line.

W. M. Bibby (you couldn't have many more "B's" in that name, could you, and pronounce it without stuttering?) and E. H. Fox were on hand early Tuesday, polishing up their CopperClad malleable ranges, and every little while when a customer got through giving his order they would take turns wiping off small particles of dust—one would almost think that they classed them Lincolns or Packards—and that is just about where CopperClad cranks put these fine ranges.

J. C. Mobley, W. T. Somers and Robert Parsons were on hand to show the Success warm air heater and to tell about the new corporation that is formed, J. C. Mobley, the trustee of the old company under the receivership, being slated for the presidency and general manager-ship. The receivership has been closed and the Company is doing business.

W. J. Wilson and G. B. Douglas were in charge of the exhibit of the Western Steel Products Company,

explaining the merits of their Zenith steel furnace. It is made in a cold city and they maintain that it will heat any house to a comfortable temperature in any weather—provided, of course, that it is put in right.

B. R. Pranke, M. Russell and John Hall had plenty to do in the Keith furnace exhibit, as they have many friends among the hardware merchants in Iowa.

John Wolverton and Sam Moorehead were on hand to greet the customers of the Malleable Steel Range Company and to choose a few new ones for 1924.

As usual, the American Steel & Wire Company had a large delegation to tell about their steel fence posts and other products. The boss of the show was J. W. Meaker, with A. L. Hinrichsen, L. J. Brown, Lee Ingliss, C. S. Tite and H. M. James to "spell" him.

Carl E. Sommers used to "make" Illinois and Iowa a good many years ago, when his brow was not quite so high, so naturally there were many stove merchants to greet him and swap a funny story or two in the exhibit of the Majestic Manufacturing Company, where the Majestic ranges were shown in all their glory. George Courtenay and F. E. Miars were also on deck. Carl is one of the "main guys" now, but he has not forgotten how to work a customer up to the important step—and then make him take it willingly, because he is sold.

Wheeling Corrugating Company had a fine display of ovens, oil and gas heaters. A special showing was made of the Wheeling Super-radiant gas heater. A demonstration was made of the Wheeling oil reflector, which attracted large crowds. Among the new items shown was the Wheeling long end conductor pipe elbow, which is a dandy; also their new Barn batten strip and Channel drain roofing, which provides a long felt want in "V" crimped roofing and undoubtedly will be appreciated by the trade. The booth was in charge of George Waldmann, assisted by A. M. Hansen, J. C. Schmidt and Thomas

Pykett. S. T. Scott, Manager of the Chicago warehouse, was a visitor at the convention Thursday.

The Damascus Sheet Products Company, Rockford, Illinois, had an interesting exhibit of Dasco Car-Van steel pocket knives, kitchen cutlery, punches, chisels, etc. C. P. Twomey, C. C. Gross, Henry Sperling and H. D. Siebsema took turns in showing the process by which this new, or very old, steel is made and also demonstrating by actual work its hardness, toughness and flexibility.

New York Retail Hardware Men Pay Final Tribute to Louis Joseph Ernst.

A tribute to the memory of Louis Joseph Ernst, who died recently, is paid by John B. Foley, Secretary of the New York Retail Hardware Association, on behalf of the membership of that organization:

A charter member of the Association; a director for many years; its President 1906-1907; Chairman of the Advisory Committee 1908 till January 1, 1924, retiring on that date because of steadily failing health; a Director of National Retail Hardware Association, 1912 to 1915.

Mr. Ernst was born at Rochester, New York, May 5, 1849, and had resided in that city his entire life. He entered his father's hardware store after completing his schooling. In 1880 he became a partner. Later, upon the death of his father, he became President of the company, which meantime had been incorporated. He continued at the head of this business until his death, though for several years his duties have been performed by his son, Joseph L. Ernst, because of continued ill health.

The death of Louis J. Ernst removes from the hardware trade one of the finest characters ever engaged in the retail business.

And the attributes which marked him in his business life were even more noteworthy in his home and family associations.

Those in our organization who enjoyed his confidence grew to re-

spect and admire him. He was a wise counsellor and an optimistic worker back in the days when progress was necessarily slow and discouragement frequent. His passing is a personal loss to those men.

Simple in his tastes, refined in manner and in speech and thought, helpful to his friends, an idealist in his every action for family or public affairs, repeatedly honored by his fellow citizens and the business interests of his city, Mr. Ernst's life is an inspiration for his family and an example to his associates.

We have lost a real friend, and his home city a truly Christian gentleman. May he rest in peace.

JOHN B. FOLEY, Secretary.

Syracuse, New York, February 8, 1924.

Veteran Hardware Merchant of Janesville, Wisconsin, Answers Last Summons.

E. W. Lowell, 74, widely known throughout Rock County through 42 years' connection with the hardware business, a partner in the Lowell Realty Company, and former alderman of the First ward, died recently at his home at 402 Ravine street, Janesville, Wisconsin.

Eugene W. Lowell was born at Castile, N. Y., October 12, 1849, and spent his boyhood at Wausau. He came to Janesville when 13 years of age and entered the employ of John Griffith, hardware merchant here. He was married June 16, 1875, at Emerald Grove to Libbie E. Cheney, Emerald Grove, and for a year after their marriage they lived in Chicago returning to Janesville in 1877. He entered the hardware business here, being associated with Fenner Kimball, father of Frank D. and George Kimball, and after Mr. Kimball's withdrawal conducted the business by himself. After 42 years in the hardware business Mr. Lowell retired and formed the Lowell Realty Company with J. B. Humphrey and Richard Fletcher.

Surviving him are his widow and one daughter, Mrs. C. V. Hibbard of Hastings-on-the-Hudson, New York.

Pantlind Hotel, Grand Rapids, Scene of Michigan Retail Hardware Convention, February 12 to 15.

President J. Charles Ross Makes Excellent Survey Of Past Business Of Association, With Recommendations.

THE Pantlind Hotel, Grand Rapids, Michigan, was the scene of a happy group of hardware men and their wives during the week of February 12 to 15, when the Michigan Retail Hardware Association members assembled there Tuesday morning, February 12, to attend the Association convention.

In connection with the convention, a large hardware exhibit was staged in Klingman Furniture Exhibition Building, where exhibits of hardware, stoves and furnaces could be seen in great profusion.

The convention proper opened in the Assembly Hall of the Pantlind Tuesday, February 12, although the Executive and Advisory Board held a meeting Monday morning on the mezzanine floor of the same hotel.

The Tuesday morning meeting was called to order by President J. Charles Ross, while the invocation was read by Treasurer William Moore, Detroit.

Just before President Ross made his annual address he was presented with a ring, a time-honored custom among the hardware men.

The President's address follows:

Annual Report of President J. Charles Ross.

The time has now arrived for your President to give an account of his stewardship and to prove whether he has wisely invested the talent given him for this purpose or whether he has buried it.

Notwithstanding the fact that in many counties every eligible hardware dealer has been a member of our Association for years and the state as a whole has been thoroughly canvassed repeatedly, yet through the combined efforts of our efficient Field Secretary, the insurance solicitors, traveling men and officers of the Association, we have been able to add to our membership during the past year 65 new members, giving us a total membership to date of 1,685 as compared with 1,620 of one year ago.

On January 4th our Association offices in Marine City were completely destroyed by fire. Of all the records, charts, reports and statistics compiled since the origin of our Association only those which were in the safe when it dropped from the second floor to the basement were saved. These were thoroughly water soaked.

Most of the records were compiled by our present efficient Secretary Scott during the 23 years of his incumbency and were of inestimable value to us. They represented the result of many arduous hours of toil and I can assure you that our faithful Secretary suffered as much through this loss as though it had been a personal one. Our furniture and fixtures were, of course, insured, but when you attempt to replace equipment purchased years ago at present day prices, you will realize the value of keeping well "covered" and be grateful for such coverage as you may secure to help replace your loss.

Spirit of Membership Excellent.

If we were to reckon our accomplishments on the basis of increased member-



J. Charles Ross,
Retiring President, Michigan
Retail Hardware Association.

ship and cash balances alone, we would be grossly lacking in foresight. This, as well as other organizations, should count their activities, value and attainments on the SERVICE they render their members; for in Association work as in business, SERVICE is the one big and predominating thought to keep before us.

During the past year we have held thirty-two group meetings in various parts of the state including both the upper and lower peninsula. These group meetings were well attended, some members driving more than a hundred miles over bad roads and through rain to attend, and covering the same 100 miles back again after the meeting.

Service Activities of Association.

During 1923 our Secretaries visited 869 members and 157 non-members. Other officers visited seventy-eight members and four non-members. Forty-two officers or committeemen attended group meetings. Our Secretary issued twenty-five secre-

tarial messages and four exchange or bargain sheets. Seventy of our members ordered Combination Records, thirty-five customer's ledgers, ninety-five Inventory Supplies and twenty-seven miscellaneous supplies.

Through the assistance of our Field Secretary thirty complete accounting systems were installed. Thirty-six members were offered suggestions as to store and stock arrangement, eighteen were furnished standard plans and two special plans. Eleven members were given direct help on advertising and two ordered National Retail Hardware Association advertising service.

Simplification Accomplished.

Simplification of merchandise is another important activity of the National Association at the present time which is, or should be, of the greatest concern to every dealer. The United States Department of Commerce together with officers of our National Association and about 90 per cent of the manufacturers of woven wire fencing, at a meeting held last July agreed upon a reduction in style from 552 to sixty-nine and of sized packages from 2072 to 138 and this is only one of numerous lines to be considered.

Since our last convention there has been organized the Retailers National Council with which our National Association has become affiliated.

The Board of Governors of the "National" recognize the need of this new organization which unites in strength and force all National retail organizations, whose combined membership totals 150,000 members, employing approximately 1,000,000 people, and whose combined total annual sales amount to \$10,000,000,000.

Competition Becoming Keener Each Year.

From reports coming to our Secretary's office an increasing number of our members are appreciating to a greater extent than ever before the advantage of group meetings and the benefits to be derived from our Field Secretary's talks and the charts he projects on the screen; namely, better accounting methods, improved store and stock arrangement, lowering of overhead and increased stock turn; all of vital interest to the present-day merchandiser.

Future Business Outlook.

We all know that much depends upon the farmer. With this in mind figures were obtained from P. J. Stokes, a gentleman secured by our National Officers from Babson's Statistical Research Institute, and who is in charge of the Research Service Department of the National Retail Hardware Association.

The hypothetical value of all crops produced in the United States during 1923 was \$9,470,976,000. This represented an increase of 12 per cent over the 1922 valuation of \$8,445,979,000.

Following is a comparison of the 1921, 1922 and 1923 value of the more important farm crops:

The value of the 1923 corn crop was 71 per cent greater than that of 1921 and 16 per cent greater than 1922.

Wheat is the only major crop which showed a reduction in value during 1923 as compared with 1921 and 1922. Last year's value was 4 per cent less than in 1921 and 17 per cent less than in 1922. It is interesting to note that in 1922 the value of all wheat produced in the United States was only 6 per cent of the total value of all farm products.

Increase in Average.

Reports show further that the wheat acreage increased from 47,000,000 acres average for the five years before the war to 64,000,000 acres average for the past five years, with a production increase from 690,000,000 bushels annually for the period before the war to an average of 880,000,000 bushels annually for the later period; a gain of 36 per cent in acreage and 28 per cent in production.

In addition to increased wheat acreage in the United States, Canada, Argentina, and Australia have also steadily increased acreage all out of proportion to population increase. The only solution of the wheat farmers' problem seems to be less acreage of wheat and more diversified crops. Our members in wheat sections should lend their assistance to this end.

The value of 1923 oats crop was 65 per cent greater than that of 1921 and 13 per cent greater than that of 1922.

Hay is a much more important crop than the average person realizes. This is due to the fact that such a large proportion is used on the farms. It is interesting to note that the 1923 hay crop has been valued at 26 per cent more than that of 1921 and 4 per cent greater than that of 1922.

The 1923 potato crop brought the farmers 15 per cent less than that of 1921, but represented an increase of 29 per cent over 1922.

Cotton has shown the greatest increase in value of any crop as compared with 1921—143 per cent. The 1923 yield has brought farmers 35 per cent more than 1922.

The 1923 tobacco crop is valued at 41 per cent greater than that of 1921 and 3 per cent greater than that of 1922.

Michigan has shown even more substantial improvement in the value of its crops than has the United States as a whole. In 1921 all crops in this state were valued at \$183,685,000.

In 1922 the valuation increased to \$214,899,000. Nineteen hundred and twenty-three yielded a further increase to \$242,472,000. In other words 1923 crops were worth 32 per cent more than those of 1921 and 13 per cent more than those of 1922.

Reviewing Building Field.

Building in 1923 set a new record. A survey shows construction valued at \$5,992,900,000. This reduced the shortage of needed building by 2,617,900,000, or about 40 per cent. What interests us is that there is still a shortage of \$3,375,000,000 in needed buildings in the United States and owing to Michigan's great automobile industries she will have to absorb considerable more than her ordinary share of this building program.

Mr. Ford, it is reported, will spend \$125,000,000 for his 1924 program. New

plants are planned, cement by-products, coke and wood distillation are included among the projects planned.

The fact that one in every seven persons in the United States owns a motor car and that the number of cars in use in 1923 over 1922 was 2,916,918, or an increase of 23.6 per cent has not seemed to cause a let-up in the automotive industry which during 1923 used 11 per cent of all steel produced in the United States.

The manufacturers of auto pleasure cars and trucks are planning the largest production in their history for 1924.

Interpreting These Statistics in Terms of Orders.

May we not profitably hesitate a moment then and ask ourselves what portion of these projects and activities are we as merchandisers of hardware going to participate in and profit from?

With the enormous needed building program ahead of us the requirements necessary for increased auto production



William Moore,
Re-elected Treasurer, Michigan
Hardware Association.

estimated at over a billion dollars, and the great need of our railroad systems in new equipment and rolling stock, and the usual expansion in all sections of a progressive nation . . . what, if any, are the prospects of declining prices in the near future, and what may we reasonably expect in the way of deliveries?

There is some difference of opinion between forecasters but the majority predict that at least for the first half of 1924 we may be reasonably sure of good business.

So-called "presidential year" no longer causes the fear and doubt about business that it once did.

Following the President's address the necessary committees were appointed and important announcements were made.

Distribution questions of national importance to the hardware trade were then discussed by Alvin E. Dodd, Manager of the Domestic Distribution Department, Chamber

of Commerce of the United States. This address was followed by singing.

When the merriment had died down and order was once more restored to the assembly, H. N. McGill, Director Commodity Department, Babson's Statistical Organization, Wellesley Hills, Massachusetts, addressed the assembly on the "Business Outlook for 1924."

Due to lack of space, this address will appear in a later issue.

The entertainment feature of the convention during the evening of the first day consisted in a theater party, which enjoyed a performance at the Empress Theater.

Wednesday, February 13.

An address on "Credits and Collections" was given by Charles H. Sutton, Howell, Michigan. This address will appear in a later issue.

The address of Mr. Sutton was followed by a talk on "The Customer's View of Your Business," by Walter L. Cornell, Grand Rapids.

Hamp Williams, President of the National Retail Hardware Association, Hot Springs, Arkansas, spoke interestingly on "What Makes Success or Failure for the Average Hardware Business?" This address will also appear under a separate head in another issue.

B. Christianson, Assistant Secretary of the Wisconsin Retail Hardware Association, Stevens Point, Wisconsin, led the discussion on "What, if Anything, Is the Matter with Hardware Retailing Today?"

The speeches were frequently interspersed with songs and some of those delightful little stories for which the hardware men are especially noted.

The report of Secretary Arthur J. Scott, Marine City, was held until Wednesday evening, and was as follows:

Annual Report of Secretary Arthur J. Scott.

Fire on January 5th destroyed the Association office and all records and files were lost. My first thought was, how, without records and files to refer to, can a report of the Association activities and progress for the past year be made? Fortunately, a report was sent to the national office on January 1st and through the information gained from a

copy of this report I am pleased to submit to you the following:

It is gratifying to again report that the Michigan Association is still in the lead of all other single state associations as to membership. At the time of our last convention we reported 1,620 members. We now have a membership of 1,685, which shows a gain for the year of 65.

Field Secretary Nelson is doing a splendid work and I believe his services are appreciated by the major portion of our members. He is always ready and willing to help dealers with any of their store problems, and will give suggestions on store and stock arrangement, advertising, window display, better business records.

During the past year he has called at 869 hardware stores. Mr. Nelson is a practical hardware man and has had special training, and is in a position to give you help if you will allow him to. When he calls, I am in hopes that you will feel free to talk these trade problems over with him, as he may give you some suggestions that will be of benefit to you and your business.

Thirty-two group meetings were held during the past year. These meetings were well attended and the dealers were desirous of having them continued.

Traffic Department Discontinued.

It was decided by the Executive Board of your Association to discontinue the Traffic Department, for the reason that the recoveries for overcharges in freight bills were so small that we could not get anyone to do the work on a commission basis who would handle it in a satisfactory manner. One of our neighboring state associations is having similar trouble. They say: "An audit of 10,349 bills developed a total overcharge of \$3.00. The entire time of one man was devoted to this work for several weeks."

More of our members than ever, during the past year, have taken advantage of the Information Service rendered by the state and national associations. We are in a position to furnish promptly information on the source of supply of unfamiliar brands of merchandise or repairs for same. The national office has compiled a directory of more than 11,000 trade names for aluminum ware, enamel ware, washing machines, sewing machines, clippers, lawn mowers, food choppers and oil stoves.

Information Bulletin Continues.

Interest still continues in our Bargain and Information Bulletin and many members have disposed of dead and obsolete stock and others have made considerable money through taking advantage of the special offers which these bulletins contain.

Our hardware mutual fire insurance companies continue to grow and there are five companies now returning 50 per cent. I cannot see how a hardware man can refrain from not being a member of the Association and deprive himself of the big saving in this important item of overhead expense.

For the reason that there are so many fake collection agencies operating in the state, I am of the belief that a Collection Department opened in the Association office and operated on a commission basis would be of benefit to many of our members, and I recommend this for your consideration.

The Twenty-Fourth Annual Congress of the National Retail Hardware Association was held in Richmond, Virginia,

June 19 to 22. The principal subject for discussion at this meeting was "Distribution Cost." Many manufacturers and wholesalers were in attendance and the views of all branches of the hardware trade were given. Everyone seemed heartily in sympathy with the purpose of this discussion to analyze distribution costs, honestly and frankly, and all discussions were well to the point, expressive of the best thought of the various factors of the trade. Our state was honored at this meeting by the election of our President, J. Charles Ross, as a member of the Board of Governors.

In closing I desire to thank the officers, members of committees and members for their cooperation, help, courtesies extended and for the encouragement which I have received from them as Secretary during the past year.

At 10:30 a. m. Wednesday the ladies met in the lobby of the Hotel Rowe, and from there were escorted



Arthur J. Scott,
Re-elected Secretary, Michigan
Hardware Association.

through the show room of the Berkeley & Gay Furniture Company.

In the afternoon of the same day the ladies were treated to a theater party. They met on the mezzanine floor of the Hotel Pantlind at 2:15 and went to the theater in a body.

A card party was enjoyed by the ladies Wednesday evening.

Thursday Morning, February 14.

An address on "Good Business Records" was delivered Thursday morning by C. L. Glasgow, Nashville, and this address appears on another page of this issue. In this talk Mr. Glasgow went into considerable detail in emphasizing the necessity of keeping good business records at all times. He gave several illustrations of where merchants

had been saved a great deal of money and worry because of the adequacy of business records.

This address was followed by "Service Relations of Town and Country," by J. H. Kolb, Department of Agricultural Economics, University of Wisconsin. This address will appear in an early issue, as will the one by Charles Henry Mackintosh, Chicago, Ex-International President of the Associated Advertising Clubs of the World, which, due to their extreme length, it was impossible to get into this issue.

Election of Officers.

The election of officers resulted in the following named men being placed into office:

The officers elected were as follows:

President—A. J. Rankin, Shelby.

Vice President—Scott Kendrick, Flint.

Secretary—Arthur J. Scott, Marine City, re-elected.

Treasurer—William Moore, Detroit, re-elected.

Field Secretary—Charles F. Nelson, Marine City, re-elected.

The following men were added to the Executive Board for a term of two years: J. Charles Ross, Kalamazoo; W. A. Slack, Bad Axe; George Kidd, Detroit; H. C. Waters, Paw Paw, and W. S. Felton, Engadine.

The officers and committee men in charge of the Michigan convention have long been noted for their extreme hospitality and these men certainly maintained their reputation at the February convention and many, many thanks are due them.

Banquet and entertainment at the Coliseum. Dr. Willard Scott, humorist and philosopher, was the main speaker. He not only made men laugh—he made them think. Delegates and their ladies met in the lobby of the Hotel Pantlind at 6:30 sharp and went in a body to the Coliseum.

Friday, February 15.

The Exhibit hall was open until noon. The afternoon was given over to executive session for hardware dealers only.

The reports of the various committees were heard and unfinished business wound up.

The new Executive Board held a meeting in the Pantlind Hotel immediately after the adjournment.

Michigan Musings

Yes, the Fox Furnace Company had its usual attractive display, and it is hard telling which brought more inquiring dealers, the new Sunbeam Cabinet or their regular line of warm air furnaces. Charlie Bartholomew, W. R. Cameron and Martin Kerkhoff seemed to have made good use of their order books.

"Charlie" Nason, our genial Michigan Travelers' Auxiliary President, presided quite graciously at the Milcor booth and no wonder "Charlie" can sell his company's products, because he believes in them heart and soul and is proud of his connection with the "finest house in the country to work for and do business with."

That new Garland Radio parlor furnace looks like it is going to make a real hit. No wonder. W. J. Hill, Sales Manager, H. D. Wilson, F. R. Bishop and "Bob" Mim-mack, who represented the Michigan Stove Company sales organization, are so enthusiastic.

"Hello there, Frank," seemed to be a regular by-word at the majority of the exhibit sessions. No need to say who "Frank" is, because everybody in Michigan knows the good-natured, efficient Secretary of the Michigan Sheet Metal and Roofing Contractors' Association—Frank Ederle.

"Buck" Taylor, popular Sales-manager of the Premier Warm Air Furnace Company, didn't get to Grand Rapids this time, but apparently he wasn't missed so very much, as the dealers crowded around and were well taken care of by Richard Judd, D. Carney and Glenn Burgess.

The Waddells found it necessary to take a larger "apartment" this year; in fact, used another large space in addition to their usual big room for their display of Renown

ranges, Florence oil stoves, Sunray gas ranges and White Frost refrigerators. The three Waddells—R. J., C. W. and Robert L.—with John C. Pankow had a busy time.

What the L. J. Mueller Furnace Company lacked in quantity they made up in quality, for J. A. Doak certainly can handle a good crowd, and it looked like business was "good."

Ross B. Strong was there—galoshes and all. As usual, his car got stuck in the snow and it was a mighty good thing he had those galoshes on. N. L. Evans and D. I. Doyle were in the Homer booth with him.

Our old friend "Tommy Tompkins" did the honors in the Mount Vernon Furnace and Manufacturing Company booth, for Tommy for some time has been successfully selling this line in his same old territory.

If you ever get anywhere near Jackson, Michigan, it will be worth your while to visit (not live at) the Michigan State Prison. It is a wonderful institution and Warden Harry Hulbert must be a wonderful man to have accomplished what he has done, for although this is a penal institution, it is a remarkable industrial center and its products are sold all over the country. Binder twine is one of its biggest products and was attractively displayed in their interesting exhibit, which was under the direction of B. G. Davis and V. F. Clarke.

Dave Farquhar, although apparently doing a land office business, didn't look as happy as usual toward the end of the convention, and when "kidded" about it, Dave admitted that, while he appreciated the advancement given him by the Tee-Bee folks in making him manager of their new Kansas City branch, still he hated to think of leaving his many Michigan friends. Wednesday afternoon he was joined by "Bill" Laffin, Chicago manager, and his charming wife, who has become no less popular with the Michigan crowd than Bill.

A small model of the 1847 Cartton atop of the new 1924 Carton,

caused much comment at the International Heater Company Exhibit, where Chicago Manager D. E. McCabe, L. J. Brien, E. M. Tyler and T. R. Mackin extolled the merits of the International line of warm air furnaces.

C. E. Glessner, of the Excelsior Steel Furnace Company, came up from Chicago Thursday to help Jos Goldberg and their new Michigan man, R. H. Bristol. They apparently like the Michigan dealers because, to quote them, "they do buy at this convention and that's why we like to come up here."

As usual the American Steel & Wire Company had plenty of good, comfortable chairs and many visitors, for who could visit such hosts as Henry Squibbs, L. M. Silverman, W. H. Parker, R. A. Beak, J. W. Martin and F. W. Weir.

The stove manufacturers were fairly well represented, but no exhibits of oil and gas stoves was more popular than the Quick Meal Stove Company, where E. W. Klein held court. Mr. Klein, although comparatively new in the Michigan territory, has gained a number of dealer friends.

Of course, Gus Ruhling was there with his line of V. and B. tools, for no Michigan convention would be complete without Gus.

Ralph Blanchard couldn't stay away from Michigan if he tried. Although he had no exhibit, he found the time to shake hands with his host of friends. Everybody in Michigan knows Blanchard.

H. N. Dietrich, Elgin, was one of the most popular men at the Exhibit Hall. It is hard telling whether the balloons he distributed so generously drew the crowds or the Lady Elgin ovens and kitchenette range which he and his Michigan man, E. W. Biggers, displayed so attractively.

It was good to see Wayne Young back in his old territory for "Wayne" belongs to Michigan and when his firm, the U. S. Register Company, sent him to Iowa he was surely missed by his many friends. The Youngs are now living in Battle

Creek, but they have so many friends in Grand Rapids, Mrs. Young couldn't resist coming along.

Although the Waddells took care of the Renown interests, J. Edwin Ellis and George Valentine spent a day or two at the convention visiting friends.

Our old friend "Doc" Weatherly circled around getting new ideas for his "Furnace Hospital" and greeting his many friends among the manufacturers and dealers for

"Doc" is one of the most popular men in the furnace game.

N. L. Pierson, Jr., who by the way is now District Manager of the Detroit office of the American Rolling Mill Company, "blew in" Wednesday night accompanied by his new assistant, R. L. Shugg. "Newt" says he is awfully busy these days, business is fine and he is "crazy" about his new job. His only regret was that he could not stay long enough to see all his friends.

C. L. Glasgow Tells Michigan Hardware Men Why They Should Have Records of Their Transaction.

Says "Sorry, Sir, But We Are Out of That" Shows Gross Carelessness on Part of Clerk and Employer Alike.

A THOROUGH understanding of what comprises good business records must be had before these can be fostered. Speaking before the members of the Michigan Retail Hardware Association in convention at Grand Rapids, Michigan, February 12 to 15, 1924, C. L. Glasgow, Nashville, gave a very enlightening address on the propriety of having "Good Business Records."

Good Business Records.

It is a reasonable assumption that every business man desires to make a good record, not only because it is his source of revenue, but also because he naturally takes pride in it and then after he has passed from the active duties of life, his friends when listing his virtues may add "he was also a splendid business man" and of great value to the community by reason of his genius, executive ability and courage.

I do not believe, however, this is the way the committee desired I should treat my subject, but rather as "good records in business," which, while somewhat different, yet we realize one rarely attains success in business without having employed good business records.

We make certain preparations and incur given expenses for the sole purpose of getting customers into our respective places of business to sell them goods at a profit. We pass years of training in school and store preparing to be good salesmen and good executives.

We eventually purchase or rent a store building and stock it with merchandise, or buy the stock therein, hire clerks, pay for lights, heat, up-to-date fixtures, taxes, advertising, trucking, freight, all to let people know who we are, where we are, what we have to sell, and when the customer enters the store and asks for goods we have advertised, all of these facilities have played their part and won; but suppose the clerk is forced by con-

ditions to say to the customer, "Sorry, sir, but we are out of that today," and when this has occurred about three times, the customer is disgusted and comes to the conclusion that we are incompetent or lacking in funds and does his trading elsewhere.

The customer may be wrong, for we may be competent and not lacking for funds, but our employes may be extremely careless.

Stock or Want Book a Positive Necessity.

Every store has or should have a stock or want book, in which entries are made of goods low or out, most preferably the former, but more often, I fear, the latter. This book, when properly kept, enables the buyer to buy in time and buy intelligently, but if clerks neglect to make the proper entry, then the experience of the customer herein recited results, and to me this is the most inexcusable blunder or oversight in modern retail merchandising; for the expense is small, but the loss large, particularly if it results in the loss of the customer, and, therefore, we are all deeply interested in the best system that will cause our employes to be more thoughtful in this respect.

I am not addressing myself to this subject for the benefit of our members who do a business justifying the employment of full-time bookkeepers, stenographers, auditors, stockkeepers, adding machines, but to the great majority of our members who do much of their own selling, all of their buying and bookkeeping, and who may enjoy part of this assistance but not all.

First—I suggest that you do not attempt to reduce the number of "outs" by carrying too large a stock, for this retards turnover and dissipates profits, but buy often and by keeping your want book properly, prevent this useless waste of being out of stock or overstocked.

Study Plans of Recording Sales.

Secondly—Study plans that insure all time sales being recorded. A good cash register helps, but it does not force the

employee to make a record in all cases. As many of us know, one or a number of sales to a customer having a good-sized or long running account, if overlooked, may not be noticed and often the person who forgets the charge is not the one who settles with the customer, and, therefore, there is no money connection between the sale and the made-up statement or settlement. A customer rarely exercises his memory enthusiastically to help you remember, but readily complains when proper credit has not been given. Under the most careful system errors will occur, and while many systems have been devised and employed, the human element renders them all imperfect; therefore, this department of our business requires constant and close scrutiny, for the losses represent cost, margin, profit (if any) and humiliation.

Thirdly—Assuming that the entries have been properly made and we come to make settlement with our customer, always give a receipt (carbon copy preferred), whether the settlement be by note or cash (I understand some note settlements are made these days), have this note entered in a note register having space for date, maker, postoffice address, in whose favor, rate of interest, when due and when paid. You or the bookkeeper can enter these at leisure and when the note is paid or renewed the record should so show and a notation on the back of each note should state for what given, account, direct sale or renewal, and if renewal, of what numbered note per your record.

Fourthly—There are certain lines of goods that in time need repairs, ranges, heaters, furnaces. It is a good plan to make a record of each sale and place in such record name and number with all the information required by the manufacturer when furnishing repairs, then when your customer asks for grates and linings, your record will give you all the information required and your customer will appreciate your care exercised in his behalf. This may include such other articles as you may choose.

Fifthly—A record of invoices alphabetically arranged enables you to produce any invoice desired and find thereon notations explanatory of shortage, breakage, error in price or extension, and if any portion returned, date of such return and the amount charged.

Make Carbons of All Letters.

Sixth—I have found it profitable and often the means of furnishing information to settle differences, if all letters such as mail orders, correspondence regarding price, terms and charges for damage or returned goods, were either carbon or letter press copies. A copied letter is rarely disputed and from this record both you and the other party know what was written and it results in a much better feeling in all adjustments.

Seventh—In making charges to customers paying part of same, do not charge balance not paid for, but itemize and charge the entire purchase and give credit for cash paid and issue a receipt therefor; also where goods charged are returned and other goods taken, credit goods returned and charge those taken, even though the amount be the same. Then when you render itemized statement to customer your record will be complete and not left to memory, for the clerk who made the charge may not be with you and the customer remembers clearly the return of the articles, but

forgets that other articles of equal value were taken in exchange.

Have Records Show Where Goods Were Delivered.

Eighth—When charge is made, let record show if customer, some member of the family or neighbor got the goods, and the initials of the clerk making the sale, and when account is settled let initials (if by other than the proprietor) of the person issuing the receipt appear under the proprietor's or firm's name affixed thereto.

This may strike you as too much red tape and unnecessary, but you will not find it so, but rather very satisfactory to both you and your customer, and when once in operation will not take near as much time as you think.

It is well to make as much of these records in the presence of the customer as possible, for when he or she notices the care with which you handle accounts and notes it will inspire confidence and to a large extent avoid disputes which might otherwise arise.

No one realizes the benefits of complete records and correctly kept books more than the traveling men who have occasion to make adjustments and settlements with their customers.

Freight bills should be carefully filed, so that in case of need they can be secured at once to support any charge made, and not simply paid and then carelessly thrown aside as unimportant.

I believe that the business man who does a credit business (and most of us do) cannot be too careful, for we can neither afford to allow reasonable ground for suspicion that our books and records are not correct, nor allow the losses due to compromise adjustments, which are never entirely satisfactory.

I believe that all of our members take at least annual inventories if for no other reason than to be able to make the report required by the government and at the same time determine profit and loss, rearrangement of stock, etc.

The Hidden Name Contest Will Stimulate Sales.

Try this when you want to stimulate a little interest during dull seasons and at the same time get some inexpensive advertising. Select the name of the tenth customer who comes into your store on Monday morning, write his or her name and the date of some other day of that week on a sheet of paper, insert the paper in a thick envelope and mount the envelope in the center of a large piece of cardboard on which is lettered the following sign.

Is Yours the Hidden Name?

"This envelope contains the name of a resident of our city. It also contains the name of one day of the week. If the party whose name is written on the

card in this envelope makes a purchase at our store on the day of the week identical with that written on the card in this envelope, we shall gladly make him or her a present of five dollars."

If you should adopt this plan it would be well to continue it for several weeks, for its advertising effects are cumulative. After three or four weeks have passed your weekly present will have built up a lot of conversational publicity in your neighborhood.

Coming Conventions

Illinois Retail Hardware Association, Hotel Sherman, Chicago, Illinois, February 19, 20 and 21, 1924. Leon D. Nish, Secretary-Treasurer, Elgin.

Ohio Hardware Association, Convention and Exhibition, Cincinnati, Ohio, February 19, 20, 21 and 22, 1924. James B. Carson, Secretary, 1001 Schwind Building, Dayton.

New York Retail Hardware Association Convention and Exhibition, February, 19, 20, 21, 22, 1924. Headquarters, McAlpin Hotel, and exhibition at Seventy-first Regiment Armory, New York City. John B. Foley, Secretary, 412-413 City Bank Building, Syracuse.

New England Hardware Dealers' Association Convention and Exhibition, Mechanics' Building, Boston, February 20, 21, 22, 1924. George A. Field, Secretary, 10 High Street, Boston.

North Dakota Retail Hardware Association Convention and Exhibition, Municipal Auditorium, Fargo, February 20, 21, 22, 1924. C. N. Barnes, Secretary, Grand Forks.

Michigan Sheet Metal and Roofing Contractors' Association, February 25 to 28, 1924, Hotel Kerns, Lansing. F. E. Ederle, Secretary, 1121 Franklin Street, S. E., Grand Rapids.

Missouri Retail Hardware Association Convention and Exhibition, Marquette Hotel, St. Louis, February 26, 27 and 28, 1924. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis.

Minnesota Retail Hardware Association Convention and Exposition, St. Paul Auditorium, February 26, 27, 28, 29, 1924. C. H. Casey, Secretary, Jordan.

South Dakota Retail Hardware Association and Exposition, Coliseum Building, Sioux Falls, March 4, 5, 6, 7, 1924. C. H. Casey, Secretary, Jordan, Minnesota.

Wisconsin Sheet Metal Contractors' Association, March 11 and 12, Republican House, Milwaukee. Carl Andersen, Racine, Secretary.

Iowa Sheet Metal Contractors' Association, March 13 and 14, Wahkonsa Hotel, Fort Dodge. R. E. Pauley, Secretary, Mason City.

California Retail Hardware Implement Association Convention and Exhibition, Civic Auditorium, San Fran-

cisco, March 18, 19, 20, 21, 22, 1924. LeRoy Smith, Treasurer, 112 Market Street, San Francisco.

Convention Southern Hardware Jobbers' Association, Roosevelt Hotel, New Orleans, Louisiana, April 8 to 11, 1924. John Donnan, Secretary-Treasurer, Room 821, American National Bank Building, Richmond, Virginia.

Spring Convention of American Hardware Manufacturers' Association, Roosevelt Hotel, New Orleans, Louisiana, April 8, 9, 10 and 11, 1924. Frederick D. Mitchell, Secretary-Treasurer, 1819 Broadway, New York City.

Annual Convention of Southern Hardware Jobbers' Association, April 8, 9, 10 and 11, 1924, at Roosevelt Hotel, New Orleans, Louisiana. John Donnan, Secretary-Treasurer, Room 821, American National Bank Building, Richmond, Virginia.

Old Guard Southern Hardware Salesmen's Association, April 9. Hotel Roosevelt, New Orleans. R. P. Boyd, Secretary, R. F. D. 4, Nashville, Tennessee.

Illinois Sheet Metal Contractors' Association, Jefferson Hotel, Peoria, Illinois, April 9 and 10, 1924. Fred C. Gross, Secretary, 219 South Fifth Street, Quincy, Illinois.

National Warm Air Heating and Ventilating Association Convention, Hotel Winton, Cleveland, Ohio, April 16 and 17, 1924. Allen W. Williams, 52 West Gay Street, Columbus, Ohio, Secretary.

Missouri Sheet Metal Contractors' Association, Kansas City, Missouri, April 22 and 23, 1924. John B. Fehlig, Secretary, 528 Delaware Street, Kansas City, Missouri.

Southeastern Retail Hardware and Implement Association, composed of Alabama, Florida, Georgia and Tennessee. Convention and Exhibition, Atlanta, Georgia, May 27, 28, 29, 1924. Walter Harlan, Secretary, 701 Grand Theater Building, Atlanta.

Retail Hardware Doings

Arkansas.

The Topf-Whitten Hardware Company, 223 Main Street, Little Rock, has been purchased by R. E. L. Scott, well known business man and former proprietor of the Scott cash grocery. The new owner has announced that he will change the name to "The Scott Hardware Company."

Indiana.

J. W. Anderson of Martinsville has sold his hardware store on the south side of the square to Harold K. Brown of Indianapolis.

Missouri.

John Linscott of Holton, Kansas, the new manager of the Crancer Hardware Store of Clinton, entered upon his duties on February 1st.

Texas.

After seventeen years of doing business under the name of the Holt Hardware Company this firm, which is located in Mineral Wells, on January 21st changed its name to the Davidson-Caldwell Hardware Company. No change was made in the stockholders and J. E. Davidson will have active management.

Lilburn H. Steel Appointed Manager New York Branch Abram Cox Stove Company.

His Natural Aptitude and His Twenty-four Years of Experience Especially Fit Him for the Position to Which He Has Been Appointed.

IN an age of specialization it is pleasing to note the twenty-four years' experience of a man, who at the age of 18, selected his life's work and has consistently stuck to it ever since.

We refer to Lilburn H. Steel, who several months ago was appointed manager of the New York branch of the Abram Cox Stove Company, Philadelphia.



Lilburn H. Steel.

Mr. Steel is by experience and inclination essentially a boiler man and has specialized in that branch of the heating business since 1900, having been associated with several of the country's largest boiler manufacturing companies.

From 1917 to 1919 Mr. Steel served with the American Forces here and in France, having been commissioned from civil life First Lieutenant in the Aviation corps.

Since the establishment of a New York office, the business of the Abram Cox Stove Company has grown to such proportions that Mr. Steel now directs the work of nine salesmen in the New York territory who operate from the company's office and showroom, 113 East 34th Street, New York City.

In that display room is exhibited the complete Abram Cox Stove Company line of Novelty Sectional Side-feed boilers, carbureter boilers, round boilers, tank heaters, Warm Air Furnaces, Novelty Coal, Fortune Gas Ranges and Novelty-Fortune Combination Ranges.

AMERICAN ARTISAN is able to publish this interesting news item through the extreme courtesy of James B. Ellis, Advertising Department of Abram Cox Stove Company.

Attractive Fusenamel Quick Meal Coal Range Booklet Issued by That Company.

First impressions are vivid and very hard to change. Therefore it behooves those who would profit by impressions to make sure that the first impression is a good one,

in order that it will not be necessary to change it.

The Quick Meal Stove Company, Division American Stove Company, 825 Chouteau Avenue, St. Louis, Missouri, has issued a new booklet, describing its Quick Meal Coal Ranges, which is indeed the last word in lithography of this form.

The feature of extraordinary interest is the description the Fusenameled Armco Iron. We quote a portion of this as follows:

"Two thicknesses of Fusenameled Armco Iron and a layer of asbestos between. Perfect insulation, which means better cooking, a more comfortable kitchen and fuel saved."

Fusenameled ranges, both white and blue, are fully described in the booklet. The backgrounds of the cuts are black, which sets off the illustrated article to full advantage.

Other outstanding features and attributes of the Quick Meal Coal Range are also given prominence in the booklet. The booklet itself contains fourteen pages and it is 3½ by 6½ inches.

Write for further particulars.

Leroy W. Cooper Heads List of New Officers in Re-Organized Matthews-Banner Company.

Well Known Range Salesmanager Takes Reigns and Starts Wheels in Factory and on Road.

LEROY W. COOPER, who was connected for fifteen years with the Malleable Steel Range Company, and during the past three years was Sales Manager for the Independent Stove Company, has been selected for the presidency and general managership of the reorganized Matthews-Banner Range Company, South Bend, Indiana. William Elliott is Vice-President; Barry Scanlon, Treasurer, and S. Jackson, Secretary.

Sufficient capital has been provided for the expansion, and nine traveling sales representatives have been engaged. A conservative estimate made of the year's business, in view of a careful survey of condi-

tions which exist, indicates, it is said, that there will be a volume of business done in 1924, exceeding that of any year's business conducted by the original concern.

The many friends of Mr. Cooper among the stove merchants will wish him well in his new enterprise, and with his ability as a salesman he should build up a good clientele for the high-grade ranges which the company has been making.

Nobody likes to do business with a man who is always overreaching, always trying to get the very last possible cent in a deal. Don't get a reputation for being stingy in business.

New Strength And Vigor In Industrial Situation— Trade Dullness No Longer Feared.

*Non-Ferrous, Excepting Copper, Have Been Very Active,
With Higher Prices—Increased Freight Traffic Shown.*

THERE is little change in the general business situation this week. Operations and shipments continue very good, but disinclination of consumers to buy into the future continues a feature.

Iron and steel continues to make a good showing, with increasing operations and deliveries, and also an increase in orders.

Non-ferrous metals, with the single exception of copper, have been active at higher prices, and in the case of tin excited. But the activity that has existed has been almost entirely confined to trading operations. Consumers have been cautious buyers of futures, apparently distrustful regarding present higher prices, and apparently still in doubt regarding what summer and autumn business developments will bring.

Two events of importance are in the making. One is the proposed loan to Japan, which will create an enlarged demand for building materials in this country. The other is the coal mine conference now under way in Florida.

This increase in building is due to mild weather, slightly lower costs, the stimulus of easy money and the pressure of unfilled needs. Of these factors, easy money and weather will continue favorable. Rising costs and diminishing requirements may operate as a brake.

Copper.

The weakness which struck the copper market February 1, when some of the members of the Copper Export Association began to sell independently, soon ceased as the various factors realized the suicidal results of such policy. Subsequently prices firmed up in this country also and the market recovered from 12.50 cents last week to 12.62½ cents to 12.75 cents, delivered, Monday. Tuesday was a holiday and

generally observed in the New York market. Casting copper recovered to 12.45 cents, lake to 12.87½ cents. Scrap also showed more firmness.

Tin.

The feature of the market at the beginning of the week has been the melting away of the premium on spot tin. Last Friday several carloads of spot Straits were sold at 53.00 cents. February 11 it was offered without takers at 51.75 cents and attempts to draw bids at 51.50 cents have so far been unavailing. It isn't that the supplies of spot tin have increased so much, but owing to the arrival of about 1,900 tons on the "Atlanta City," some of the owners of spot wish to dispose of their holdings, fearing that the premium may disappear altogether in the near future.

The price for February tin is also lower. There are sellers of this at 51.50 cents, as against sales last Friday at 52.25 cents to 52.50 cents.

Chicago prices of pig tin, 56.75; bar tin, 57.75.

Wire and Nails.

Increasing interest is manifested in wire products and orders are more numerous. More forward buying is being done, mill representatives urging purchases now rather than later when mills are loaded. Mixed carload orders are fairly numerous, nail buying is heavy and jobbers are equipping themselves to meet the expected heavy demand for building in the spring. Prices are unchanged at 2.75 cents, Pittsburgh, for plain wire and 3.00 cents, Pittsburgh, for wire nails.

Tin Plate.

Specifications for April tin plate requirements of the canmakers, due February 15, are coming in. Mills are anticipating a continuance of the present heavy demand throughout

the spring and well into the summer to meet the huge packing programs mapped out by the fruit and vegetable packers. Some of the tin plate producers are making up plate in advance.

A number of mills have piled the finished product which is to be shipped during the remainder of February, and possibly before March 10 they will have ready for shipment all the tin plate their customers will require in that month. Shippers are placing themselves in position to render prompt service.

Because much of the canmakers' tin plate is shipped loose, the tonnage that can be piled on warehouse floors is not so large as if the material was in boxes.

The Texas Company's order for 100,000 base boxes is understood to have gone to a West Virginia maker.

The open market figure is unchanged at \$5.50 per base box of 100 pounds, Pittsburgh, although oil companies sometimes are granted a concession because of the re-export feature, which brings a drawback when the plate finally is shipped abroad as filled oil cans.

Sheets.

All grades of steel sheets reflect decided firmness in demand and price. Some users of sheets who have been wholly indifferent during the past few weeks have become extremely anxious in the past few days to get their forward business on mill books.

Mills are being pressed by all classes of users for speedy delivery. This is especially true of the outdoor industries. In about ten days the leading local maker will open its books for the second quarter.

It seems certain that second quarter prices will be no lower than the present level of 3.00 cents, Pittsburgh, for blue annealed, 3.85 cents

for black, and 5.00 cents for galvanized.

Lead.

The lead market has been extremely strong, with offerings of metal for February and March shipment scarce. Demand for these positions has not been acute, but in cases where buyers have needed metal they have had to pay fancy premiums. The leading interest advanced its contract price \$2 a ton to 8.25 cents, New York, February 7, holding at that level to February 11. In the outside market business has been done at 9.00 cents, New York, 8.82½ cents, St. Louis.

Solder.

Chicago warehouse prices on solder are as follows: Warranted, 50-50, \$34.75; Commercial, 45-55, \$34.00, and Plumbers', \$32.75, all per 100 pounds.

Zinc.

The American Zinc Institute statistics for January show an increase in stocks for that month of 4,119 tons. The production, 49,709 tons was the largest in one month for several years. The highest point of output in 1922 was 48,731 tons in April of that year.

The retorts in operation at the end of January showed a falling off as compared with the end of December of 7,616 retorts, but evidently this decrease was effected only at the latter part of January, at which time curtailment was reported at several Western plants. This curtailment may show more effectively in the February figures unless smelters are encouraged to full resumption by the advance in price.

The Illinois Zinc Company, Peru, Illinois, announces its new prices effective February 6. Base price per 100 pounds on sheet zinc is \$9.75.

Matthiessen-Hegeler Zinc Company, La Salle, Illinois, also announces price changes in zinc. Base price per 100 pounds is \$9.75.

Bolts and Nuts.

One maker of bolts and nuts continues to quote 60 and 10 off on all but unattractive business, but other

makers generally are reported quoting 60 and 5 off for large machine bolts. If the increased price is not now general it is becoming so. Demand from automotive and implement builders continues good and plan. operations generally are high.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows:

Old steel axles, \$18.50 to \$19.00; old iron axles, \$26.50 to \$27.00; steel springs, \$20.00 to \$20.50; No. 1 wrought iron, \$15.50 to \$16.00; No. 1 cast, \$19.00 to \$19.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pounds: Light copper, 9 cents; light brass, 6 cents; lead, 6 cents; zinc, 4 cents, and cast aluminum, 17¼ cents.

Marked Stability in Pig Iron; Second Quarter Business Progressing Satisfactorily.

Bad Weather Hinders Operations in Chicago—Price Firm at \$24.50—Birmingham on a Basis of \$23 for No. 2.

SHIPMENTS of pig iron by the furnaces are mounting steadily, while the market in spots shows a continuance of heavy purchases. The East has been prominent this week with sales of 125,000 to 150,000 tons at New York and Philadelphia, including 30,000 tons of basic to the American Bridge Company, Steel Corporation subsidiary, and 20,000 tons to pipe foundries.

Building steel awards and requests remain heavy. At Chicago the Palmer House, 17,000 tons, is practically closed. Bids are about to be called for 40,000 tons for the Philadelphia-Camden bridge and for 20,000 to 25,000 tons for the second section of the Newark Bay bridge of the New Jersey Central railroad.

Orders for railroad cars just placed or on the verge of being closed run into large figures. The New York Central is credited with having virtually placed up to 17,000 cars and the Pennsylvania is near to distributing 10,000 to 12,000 cars and bodies. Orders definitely closed this week call for 4,000 for the Norfolk & Western, 2,000 for the Santa Fe. Car orders closed or near at hand, it is estimated, will call for 825,000 tons of steel. Seven car floats closed by Eastern railroads call for 7,000 tons. The Missouri Pacific has distributed 13,000 tons of tie plates.

The production of pig iron in January scored the first gain since last

May. The daily average output of 97,337 tons was an increase of 3.6 per cent over December. With the exception of last year, the month's record was the best for any January since 1919, when the industry was still under the war momentum. During the month a net gain of seventeen blast furnaces was made in the active list. Increased production has been accompanied by better demand and firmer prices.

The market report of Rogers, Brown & Company says: "The buying of pig iron continued in good volume the past week. Large tonnages were negotiated by radiation, pipe and steel makers. In consequence, a firmer tone prevailed and while there was no material change in prices, the added strength to the market, particularly in the East, suggests the probability of a further advance soon.

"A considerable tonnage of pig iron was sold for second quarter delivery, but the real buying movement for that period has not as yet set in. It does not, however, appear to be very far away.

"There was improvement in foundry operations and this was conclusively proven by the manner in which shipments were ordered forward and the amount of new business placed for immediate shipment by those who had thought their requirements were fully covered for the first quarter.

Illustrations show elbows of all angles from 10 to 90°. Note how close each cluster of elbows hugs the walls.

Use short angle elbows to get around sills, cornice mouldings and all other projections, thus preventing the commonly known soldered break in the pipe.

By using combinations of this kind, soldering is not necessary as elbows fit into each other very snug and the small opening at the joints will permit sewer gases to escape, thus increasing the life of the entire spout.

These elbows are made in all designs and your dimensions can be arranged right on the job.

TRADE MARK
F. Dieckmann

This Emblem of Quality is stamped in each.

THE FERDINAND DIECKMANN COMPANY
P. O. Station B
Cincinnati, Ohio

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON.

Chicago Foundry..	24 50
Southern Fdy. No.	
2	29 01
Lake Sup. Char-	
coal	29 04
Malleable	24 50

FIRST QUALITY BRIGHT TIN PLATES.

	Per Box
IC 14x20 112 sheets	\$12 45
IX 14x20	14 05
IXX 14x20 56 sheets	17 57
IXXX 14x20	18 12
IXXXX 14x20	18 65
IC 20x28 112 sheets	27 50
IX 20x28	29 85
IXX 20x28 56 sheets	16 15
IXXX 20x28	17 20
IXXXX 20x28	18 25

TERNE PLATES.

	Per Box
IC 20x28, 40-lb. 112 sheets	\$25 60
IX 20x28, 40-lb. "	25 50
IC 20x28, 30-lb. "	21 80
IX 20x28, 30-lb. "	24 70
IC 20x28, 25-lb. "	20 80
IX 20x28, 25-lb. "	23 70
IC 20x28, 20-lb. "	18 30
IX 20x28, 20-lb. "	21 15
IC 20x28, 15-lb. "	17 05
IX 20x28, 15-lb. "	15 75
IC 20x28, 8-lb. "	14 05

COKE PLATES.

Cokes, 80 lbs., base, 20x28.	\$13 85
Cokes, 90 lbs., base, 20x28.	14 10
Cokes, 100 lbs., base, 20x28.	14 45
Cokes, 107 lbs., base, IC	
20x28	14 85
Cokes, 135 lbs., base, IX	
20x28	17 40
Cokes, 155 lbs., base, 56	
sheets	9 75
Cokes, 175 lbs., base, 56	
sheets	10 65
Cokes, 195 lbs., base, 56	
sheets	11 70

BLUE ANNEALED SHEETS.

Base	per 100 lbs. \$3 50
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ONE PASS COLD ROLLED BLACK.

No. 18-20	per 100 lbs. \$4 50
No. 22-24	per 100 lbs. 4 55
No. 26	per 100 lbs. 4 60
No. 27	per 100 lbs. 4 65
No. 28	per 100 lbs. 4 70
No. 29	per 100 lbs. 4 75

GALVANIZED.

No. 16	per 100 lbs. \$5 10
No. 18-20	per 100 lbs. 5 25
No. 22-24	per 100 lbs. 5 40
No. 26	per 100 lbs. 5 55
No. 27	per 100 lbs. 5 70
No. 28	per 100 lbs. 5 85
No. 30	per 100 lbs. 6 35

BAR SOLDER.

50-50	per 100 lbs. 34 75
Commercial	
45-55	per 100 lbs. 34 00
Plumbers	per 100 lbs. 32 75

ZINC.

In Slabs	7 75
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SHEET ZINC.

Cask lots, stock, 100 lbs.	11 00
Less than cask lots, 100 lbs.	11 50

BRASS.

Sheets, Chicago base	19 1/2 c
Mill Base	17 1/2 c
Tubing, brazed, base	24 c
Wire, base	17 1/2 c

COPPER.

Sheets, Chicago base	20 1/2 c
Mill base	19 1/2 c
Tubing, seamless, base	23 c
Wire, No. 9 & 10 B. & S. Ga.	
.....	16 1/2 c
Wire, No. 11, B. & S. Ga.	16 1/2 c

LEAD.

American Pig	\$9 50
Bar	10 50
Sheet	
Full Coils	per 100 lbs. 10 75
Cut Coils	per 100 lbs. 11 75

TIN.

Pig Tin	per 100 lbs. 56 75
Bar Tin	per 100 lbs. 57 75

HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

ADZES.

Coopers'	
Barton's	Net
White's	Net

AMMUNITION.

Shells, Loaded, Peters.	
Loaded with Black Powder 18%	
Loaded with Smokeless Powder	18%
Winchester.	
Smokeless Repeater	
Grade	20 & 4%
Smokeless Leader	
Grade	20 & 4%
Black Powder	20 & 4%
U. M. C.	
Nitro Club	20 & 4%
Arrow	20 & 4%
New Club	20 & 4%
Gun Wads—per 1000.	
Winchester 7-8 gauge 10&7 1/2%	
" 9-10 gauge 10&7 1/2%	
" 11-28 gauge 10&7 1/2%	

ASBESTOS.

Paper up to 1/16	6c per lb.
Rollboard	6 1/2 c per lb.
Millboard 3/32 to 1/2	6c per lb.
Corrugated Paper (250 sq. ft. to roll)	\$6.00 per roll

AUGERS.

Boring Machine	40&10%
Carpenter's Nut	50%
Hollow.	
Stearns, No. 4, doz.	\$11 50
Post Hole.	
Iwan's Post Hole and Well 35%	
Vaughan's, 4 to 9 in.	\$15 60

AXES.

First Quality, Single Bitted (unhanded), 3 to 4 lb., per doz.	\$14 00
Good Quality, Single Bitted, same weight, per doz.	13 00

BAR, CROW.

Steel, 4 ft., 10 lb.	\$ 80
Steel, 5 ft., 18 lb.	1 40
Pinch Bars, 5 1/2 ft., 24 lb.	1 60

BAR, WRECKING.

V. & B. No. 12	\$0 34
V. & B. No. 24	0 43
V. & B. No. 324	0 57
V. & B. No. 30	0 48
V. & B. No. 330	0 63

BITS.

All Vaughan and Bushnell.	
Screw Driver, No. 30, each. \$	27
Screw Driver, No. 1, each.	16
Reamer, No. 80, each.	41
Reamer, No. 100, each.	41
Countersink, No. 13, each.	20
Countersink, Nos. 14-15, each	27

BLADES, SAW.

Wood.	
Atkins 30-in.	
Nos.	6 40 26
	\$8 90 \$9 45 \$5 40

BLOCKS.

Wooden	45%
Patent	45%

BLOW TORCHES (See Firepots).

BOARDS.

Stove.	Per Doz.
Crystal, 33"	\$23 90
Wash.	
No. 760, Banner Globe (single)	per doz. \$5 25
No. 652, Banner Globe (single)	per doz. 6 75
No. 801, Brass King,	per doz. 8 25
No. 860, Single—Plain Pump	6 25

BOLTS.

Carriage.	
Small, roll thread.	50 & 10%
Small and Large cut thread	50%
Machine.	
Small, roll thread.	60 & 5%
Small, cut thread.	50 & 10 & 5%
Large, cut thread.	50 & 10 & 5%
Stove	70 & 10 & 5%

BRACES, RATCHET.

V. & B. No. 444 8 in.	\$4 54
V. & B. No. 222 8 in.	3 89
V. & B. No. 111 8 in.	3 55
V. & B. No. 11 8 in.	3 02

BRUSHES.

Hot Air Pipe Cleaning.	
Bristle, with handle, each. \$	85
Flue Cleaning.	
Steel Only, each.	\$1 25

BURRS.

Copper Burrs only	40%
-------------------------	-----

BUTTS.

Steel, antique copper or dull brass finish—case lots—	
3 1/2 x 3 1/2—per dozen pairs \$	12
4 x 4	4 40
Heavy Bevel steel inside sets, case lots—	
.....per dozen sets	7 80
Steel bit keyed front door sets, each	1 90
Wrought brass bit keyed front door sets, each.	3 25
Cylinder front door sets, each	7 50

CEMENT, FURNACE.

American Seal, 5 lb. cans, net \$	45
" " 50-lb. cans, " ..	90
" " 25 lb. cans, " ..	2 00
Asbestos, 5 lb. cans, net.	45
Pecora	per 100 lbs. 7 51

CHAINS.

1/2 in. proof coil chain per 100 lbs.	\$8 25
American coil chain.	40 & 10%

CHIMNEY TOPS.

Iwan's Complete Rev. & Vent.	30%
Iwan's Iron Mountain only.	35%
Standard	30 to 40%

CHISELS.

Cold.	
V. & B. No. 25, 1/4 in., each \$	26
V. & B. No. 25, 1/2 in., each	41
Diamond Point.	
V. & B. No. 55, 1/4 in.	0 81
V. & B. No. 55, 1/2 in.	0 48

Firmer Bevelled.

Round Nose.	
V. & B. No. 65, 1/4 in.	0 29
V. & B. No. 65, 1/2 in.	0 40

Socket Firmer.

Cape.	
V. & B. No. 50, 1/4 in.	0 31
V. & B. No. 50, 1/2 in.	0 57

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.	List less 35-40%
Yankee, for Yankee Screw Drivers	\$6 00

CLAMPS.

Adjustable.	
No. 100, Door (Stearns) doz.	\$22 00
Carpenters'.	
Steel Bar. List price plus.	20%

Hose.	
Sherman's brass, 1/4-inch per doz.	\$0 48
Double, brass, 1/4-inch, per doz.	1 20

CLINKER TONGS.

Front Rank, each.	\$1 75
Per doz.	18 00

CLIPS.

Damper.	
Acme, with tail pieces, per doz.	\$1 25
Non Rivet tail pieces, per doz.	31

COPPERS—Soldering. Pointed Roofing.

3 lb. and heavier.	per lb. 40c
2 1/2 lb.	45c
2 lb.	48c
1 1/2 lb.	55c
1 lb.	60c

CORD.

No. 7 Std. per doz. banks.	\$11 00
No. 8	12 60

CORNICE BRAKES.

Chicago Steel Bending.	
Nos. 1 to 6 B.	10%

COUPLING HOSE.

Brass.	per doz. \$2 20
-------------	-----------------

CUT-OFFS.

Kuehn's Korrekt Kutoffs:	
Galv., plain, round or cor. rd.	
Standard gauge	40%
26 gauge	10%

DAMPERS.

"Yankee" Hot Air.	
7 inch, each 20c, doz.	\$1 75
8 " " 25c, " ..	2 40
9 " " 30c, " ..	2 75
10 " " 32c, " ..	3 00

Smoke Pipe.	
7 inch, each.	\$ 35
8 " " ..	40
9 " " ..	45
10 " " ..	50
12 " " ..	55

Reversible Check.	
8 inch, each.	\$1 50
9 " " ..	1 70

DIGGERS.

Post Hole.	
Iwan's Split Handle (Eureka)	
4-ft. Handle.	per doz. \$14 00
7-ft. Handle.	per doz. 35 00
Iwan's Hercules pattern, per doz.	14 90

DRILLS.

V. & B. Star, 12-inch Length.	
1/4, 5/16 and 3/8, each.	\$ 25
1/2, each	36
1, each	54
1 1/4, each	81
V. & B. Star, 18-inch Length.	
5/16 and 3/8, each.	\$ 33
1/2, each	45
1, each	63
1 1/4, each	1 05

EAVES TROUGH.

Milcor	
Galv. Crimpedge, crated.	75%

ELBOWS—Conductor Pipe.

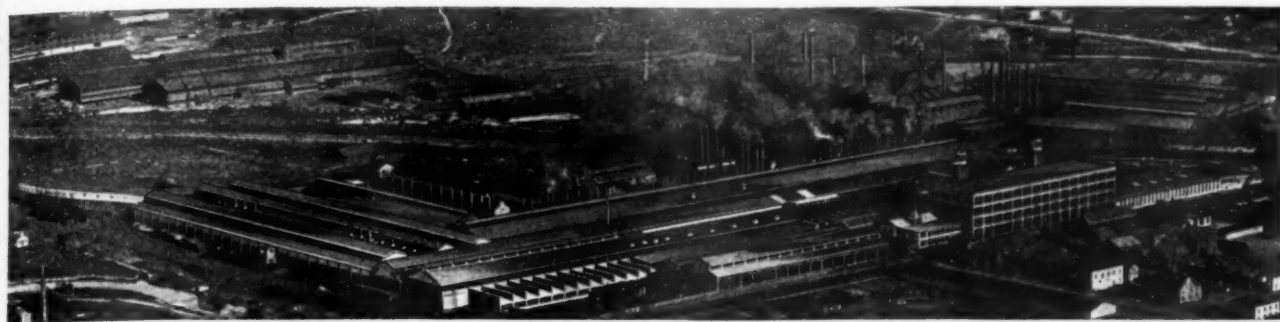
Milcor	
Galv., plain or corrugated, round flat	
Crimp, Std. gauge.	65%
26 Gauge	40%
24 Gauge	10%

Square Corrugated.	
Milcor	
Standard gauge	50%
26 gauge	30%

Portico Elbows.	
Standard Gauge Conductor Pipe, plain or corrugated.	
Not nested	70 & 5%
Nested solid	70 & 5%

ELBOWS—Stove Pipe.

1-piece Corrugated. Uniform.	Doz.
5-inch	\$1 45
6-inch	1 60
7-inch	2 10
Special Corrugated.	Doz.
6-inch	\$1 45
7-inch	1 75



At Your Service

One of the World's Greatest Sheet Metal Shops

B
BERLOY
PRODUCTS

Sheets and Roofing
Trough and Pipe
Ridge Roll, Gutter and
Kindred Products in
OPEN HEARTH STEEL
or TONCAN METAL

Unsurpassed production facilities, large warehouse space, and branch warehouse stocks in twelve cities in various parts of the country. These are behind Berloy service. Nearly thirty-five years of experience, of constant growth through serving sheet metal men satisfactorily and consistent striving for the best: these are behind Berloy quality.

Your customers will like Berloy quality. You will like Berloy Service.

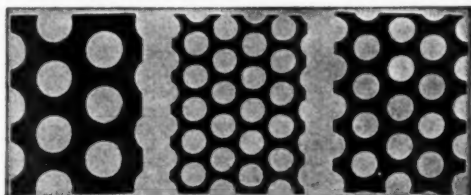
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San Francisco, Los Angeles, Dallas, Roanoke, Jacksonville.

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PERFORATED METALS



All Sizes and Shapes of Holes
In Steel, Zinc, Brass, Copper, Tinplate, etc.
For All Screening, Ventilating and Draining
EVERYTHING IN PERFORATED METAL

THE HARRINGTON & KING PERFORATING CO.

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SOFT DURABLE WORKABLE

*These qualities
combine to make*

Inland Copper Alloy Sheets

*The favorite
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Chicago Heights, Ill.

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Milwaukee St. Louis
St. Paul



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REQUIRES ONLY HEAT

Samples for Test
Upon Request

CHICAGO SOLDER COMPANY
4201 Wrightwood Ave., CHICAGO, ILL.

Uniform, Collar Adjustable.	
5-inch	Doz. \$2 00
6-inch	2 10
7-inch	2 60

WOOD FACES—50% off list.

FENCE.	
Field Fence	60 1/2%
Lawn	53%

FILES AND RASPS.	
Heller's (American)	60-5%
American	65-5%
Arcade	50-10%
Black Diamond	50-5%
Eagle	50-10%
Great Western	50-10%
Kearney & Foot	50-10%
McClellan	50-10%
Nicholson	50-10%
Simonds	60%

FIRE POTS.	
Ashton Mfg. Co.	
Complete line	
Firepots and Torches	52%

Otto Bernz Co.	
No. 1 Furn. Gasolene with large shield, 1 gal.	\$ 6 75
No. B Furn. Kerosene, 1 gal.	15 12
No. 10 Brazier, Kerosene or Gasolene, 10 gals.	47 52
No. 5 Torch, Gasolene or Kerosene, 1 pt.	7 92
No. 83 Torch, Gasolene, 1 quart	5 40
No. 86 Torch, Gasolene, 1 pt.	4 05

Clayton & Lambert's.	
East of west boundary line of Province of Manitoba, Canada, No. Dakota, So. Dakota, Nebraska, Kansas, Oklahoma, Amarillo, San Angelo and Laredo, Texas	52%
West of above boundary line.	48%

Geo. W. Diener Mfg. Co.	
No. 02 Gasolene Torch, 1 qt.	\$ 5 55
No. 0250, Kerosene or Gasolene Torch, 1 qt.	7 50
No. 10 Tinner's Furn. Square tank, 1 gal.	12 60
No. 15 Tinner's Furn. Round tank, 1 gal.	12 00
No. 21 Gas Soldering Furnace	3 60
No. 119 Automatic Gas Soldering Furnace	10 50

Double Blast Mfg. Co.	
Gasolene, Nos. 25 and 35	60%
Quick Meal Stove Co.	
Vesuvius, F.O.B. St. Louis	30%
(Extra Disc't. for large quantities)	

Chas. A. Hones, Inc.	
Buzzer No. 1	\$ 9 00
" " 2	12 00
" " 22	13 50
" " 42	15 00
" " 43	19 00

FREEZERS—ICE CREAM.	
Peerless and Alaska	
1 quart	\$2 95
2 quart	3 45
3 quart	4 10
White Mountain	
1 quart	\$4 85
2 quart	5 65

GALVANIZED WARE.	
Pails (Competition), 8 qt.	\$1 85
10-qt.	2 10
12-qt.	2 30
14-qt.	2 57
Wash tubs, No. 1	
No. 2	\$6 25
No. 3	7 00
No. 3	8 25

GARAGE DOOR HARDWARE.	
Stanley	All net

GAUGES.	
Marking, Mortise, etc.	Nets
Wire.	
Diston's	25%

GIMLETS.	
Discount	65% and 10%

GLASS.	
Single Strength, A and B.	
all sizes	83 & 85%
Double Strength, A, all sizes	84%

GREASE, AXLE.	
Frazers	
1-lb. tins, 36 to case,	
per case	\$ 4 70
3-lb. tins, 24 to case,	
per case	7 80
5-lb. tins, 12 to case,	
per case	7 30
10-lb. tins, per dozen	10 40
15-lb. tins, per dozen	12 80
25-lb. tins, per dozen	19 80

HAMMERS, HANDLED.	
All V. and B.	
Blacksmiths' Hand, No. 0,	Each, net
26-oz.	\$1 00
Engineers' No. 1, 26 oz.	1 00
Farrier's, No. 7, 7-oz.	93
Machinists', No. 1, 7-oz.	78

Nail.	
Vanadium, No. 41, 20-oz.	each 1 59
Vanadium, No. 41 1/2, 16-oz.	each 1 59
V. & B., No. 11 1/2, 16-oz.	each 1 01
Garden City, No. 11 1/2, 16-oz., each	75
Tinner's Riveting, No. 1, 8-oz., each	79
Shoe, Steel, No. 1, 18-oz., each	55
Tack.	
Magnetic.	
No. 5, 4-oz., each	81

HAMMERS, HEAVY.	
Farrier's, No. 10, 10-oz.	\$1 01

HANDLES.	
Axe.	
Hickory, No. 1	per doz. 4 00
Hickory, No. 2	3 00
1st quality, second growth	6 00
Special white, 2nd growth	5 00

Chisel.	
Hickory, Tanged, Firmer	assorted per doz. 55c
Hickory, Socket, Firmer,	Assorted per doz. 70c

File	
No. 1 per doz.	\$0 90
Second Growth hickory,	per doz. 1 50

Soldering.	
Per doz.	\$2 40

HANGERS.	
Conductor Pipe.	
Milcor Perfection Wire	25%
Eaves Trough.	
Steel hangers	30%
Triple Twist wire	10%
Milcor Eclipse Wire	20%
Milcor Triplex Wire	15%
Milcor Milwaukee Extension	15%
Milcor Steel (galv. after forming) List plus	12 1/2%
Milcor Selflock E. T. Wire,	List plus 40%

HASPS.	
Hinge, Wrought, with staples.	Net

HATCHETS.	
V. and B. Supersteel.	
Broad, No. 1, 24-oz.	Each \$1 43
Half, No. 1, 15-oz.	1 25
Half, No. 3, 27-oz.	1 37
Claw, No. 1, 19-oz.	1 31
Flooring, No. 1, 20-oz.	1 43
Shingling, No. 1, 17-oz.	1 20
Lathing, No. 1, 14-oz.	1 20
Lathing, No. 2, 17-oz.	1 25

Vanadium Steel.	
Half, No. 62, 22-oz.	\$1 82
Underhill Pattern Lathing,	9 row, 19 oz. 2 29

HINGES.	
Heavy Strap, in Bundles.	
4 inch, dozen pra.	\$1 12
5 " " "	1 57
6 " " "	1 93
8 " " "	3 21

Extra Heavy T in Bundles.	
4 inch, dozen pra.	\$1 74
5 " " "	1 85
6 " " "	2 31
8 " " "	3 95

HOES.	
Garden	Net

HOOKS.	
Box.	
V. and B. No. 9, each	\$0 26

Conductor.	
Milcor	
"Direct Drive" Wrought	
Iron for wood or brick	15%

Cotton.	
V. and B. No. 8, each	24

Hay.	
V. and B. No. 1, each	26

Bar Meat.	
V. and B. No. 26, 1/4".	each 09
V. and B. No. 25, 1/4".	each 16

Screw Meat.	
V. and B. No. 2, per gro.	6 50

Butchers' "S."	
V. and B. No. 6, each	08
V. and B. No. 8, each	11

HOSE.	
1/2-in. 2 ply molded.	Per Ft. 9 1/2c to 12 1/2c
1/2-in. cord	8 1/2c to 10c
1/2-in. wrapped	13 1/2c

HUMIDIFIERS.	
"Front-Rank," Automatic.	
In single lots	50%
In lots of 10 or more	50-5%
In lots of 25 or more	50-10%
Vapor pans, etc., each	50%

IRON.	
Sad.	
Genuine Mrs. Potts, nickel plated, per set	\$1 55
Asbestos No. 70, per set	2 10
Asbestos No. 100, per set	2 30
E. C. Stearns.	
No. OA Corner, doz. sets	\$2 50
No. OB	2 75

KNIVES.	
Butcher.	
Beechwood Handles, 6-inch blade	25%
Beechwood Handles, 7-inch blade	25%
Beechwood Handles, 3-inch blade	25%
Cooper's Hoop	
	25%

Drawing.	
Standard	25%
Adjustable	25%
Barton's Carpenters'	25%

Hay.	
Iwan's Solid Socket	25%
Heath's	25%
Iwan's Sickle Edge	25%
Iwan's Imp'd Serrated	25%

Hedge.	
Challenge	25%
Diston's No. 1	25%

Putty.	
Common	25%
Lander's	25%

Scraping.	
Beech Handles	25%
Lander's	25%

KNOBS.	
Door.	
Mineral	per doz. \$2 00
Porcelain	" 2 00
Jet	" 2 00

LADDERS.	
Step.	
Common, per ft.	28c
Common, with Shelf, add 10c	
EXL	34c
Challenge, 6 to 9 ft.	65c
10 to 16 ft.	60c
Kant-Break, per lineal ft.	75c

LANTERNS.	
Per doz.	
Monarch tin, hot blast	\$ 8 25
Dietz No. 2 cold blast	13 00
Best tubular	8 25
Competition lanterns No. 0	
tubular	6 90

LAWN MOWERS.	
12-inch	\$5 20
16-inch	5 85
Ball Bearing.	
4 blade, adjustable bearing.	
14"	\$5 20
16"	7 80

LEATHER BELTING.	
From No. 1 Oak Tanned Butts.	
Extra heavy, 18-oz.	35%
Heavy, 16-oz.	40%
Medium, 14 1/2-oz.	40%
Light, 13-oz.	50%

LEATHER LACING.	
Cut, strictly No. 1	45%

LEVELS.	
Diston, No. 28 Asst.	\$12 85
" No. 18, 20 in., each	1 85
" No. 22, 24 in., each	2 40
" Shafting, 6 in.	19 80
" " 6 in. gr. glass	24 20
" No. 1 Asst.	5 75
" No. 2 Asst.	12 40
" 24-26 in., each	1 82
" 28-30 in., each	1 00

LIFTERS.	
Stove Cover.	
Coppered	per gro. \$4 00
Alaska	4 75

LOCKS.	
Barn Door.	
No. 60 Stearns's	per doz. \$11 00
No. 80	20 00

MALLET.	
Carpenters.	
Fibre Head No. 2, per doz.	\$12 00
" No. 3	15 50
" No. 3 1/2	20 50
Round Hickory, per	
doz.	\$3 00—5 00
Tinner's.	
Hickory	per doz. \$2 25

MATS.	
Door.	
National Rigid	5 & 10 & 5%
Acme Steel Flexible	50%

MITRES.	
Galvanized steel mitres, and caps, end pieces, outlets	30%
Milcor	
Galv. one piece stamped	40%

MOPS.	
Cotton, Star (Cut Ends).	
Pounds 12' 15' 18' 24'-3-oz.	
Per doz. \$4 00 4 35 5 50 7 00	
Enterprise	16 1/2%
Parker	50 & 5%

NAILS.	
Cut Steel	\$4 70
Cut Iron	4 70
Wire.	
Common	3 80
Cement Coated	3 35

NETTING, POULTRY.	
Galvanized before weaving	45-10%
Galvanized after weaving	45%

NIPPERS.	
Nail Cutting.	
V. & B. No. 30	73c
Double Duty.	
V. & B. No. 60	76c
Hoof.	
Heller's	40 & 10%
V. & B. No. 52, each	\$2 35

NOZZLES.	
Hose.	
Diamond	" 5 75
Magic	per doz. \$9 50

OILERS.	
Chase Pattern.	
Brass and Copper	10%
Zinc Plated	40 & 5%
Railroad.	
Brass	20 & 5%
Coppered	50 & 5%
Steel.	
Copper Plated	70 & 5%

OPENERS.	
Delmonico	per doz. \$1 30
Never Slip	" 60
Crate.	
V. & B. per doz.	\$7 25—11 00

Everything Used in Sheet Metal Work



A brand almost as old as the tin-plate industry in this country—it identifies a product that has stood the test of time.

Supplied in IC and IX thickness; 112 Sheets per case; 20x28; the IC gauge will weigh about 246 lbs. net.

Since 1872

We offer the trade a thoroughly dependable service based on over 50 years of experience in supplying the needs of Sheet Metal Workers and Furnacemen. Our constant growth—an ever-increasing list of satisfied customers—testify to the quality of Osborn Products.

Catalog No. 24, ready for distribution very soon, will be sent at your request.

The J. M. & L. A. Osborn Co.
CLEVELAND OHIO

"THE STANDARD"



Ventilator

IS of the rotatable type and swings absolutely free in the slightest draft. The construction is scientifically correct and unusually strong. It works perfectly in all kinds of weather and handles 50% more air than stationary ventilators of equal size. Order from your jobber. Write for our catalog and prices today.

Manufactured by

STANDARD VENTILATOR CO.
LEWISBURG, PA.

DIPPING shingles separately in molten zinc after they have been cut and formed puts a coating on the edges as well as the sides.



—Further, shingles dipped separately in molten zinc are sure to have the heaviest possible coating for in dipping all the zinc that will adhere to the surface of the tin is allowed to do so.

Prime roofing tin only is used in making **CORTRIGHT HAND-DIPPED SHINGLES.**

Cortright Metal Roofing Co.
Philadelphia Chicago

Cortright Metal Shingles

Steel Ceilings
Side Walls and Cornices
Only first quality material used
Many neat designs of character.

Write today for our complete catalog giving descriptions and prices.

THE W. J. BURTON CO.

Junction Ave. and Federal St. and
436 Penobscot Bldg. Detroit, Michigan

This is as fine an ear as can be made. Perfect, fine finish and nicely tinned. Write today for samples.



BERGER'S
WROUGHT
STAR EARS

Furnished in gross boxes or in bulk to suit the purchaser

We can furnish sizes 20, 30 & 40 stamped from sheet brass.

No. 40

Write today for our catalog which illustrates our complete line of ears

BERGER BROS. CO.

229 to 237 ARCH STREET
WAREROOMS AND FACTORY: 100 to 114 BREAD STREET
PHILADELPHIA, PA.

1/4" Key Clamp—rocker.....	\$1 81
" " hockey..	1 88
Ice Skate outfit.....	5 00
Toller.	
Ball Bearing—Boys'	\$1 46
Ball Bearing—Girls'	1 56

SHEET COPPER

FOR ROOFING and CORNICE WORK

ALSO
SPECIAL COLD ROLLED RESQUARED STRIP
Ideal for Conductor, Gutters, Valleys, Flashings,
Gravel Stops, etc.



MERCHANT & EVANS CO.

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NEW YORK

CHICAGO

CLEVELAND

KANSAS CITY

WHEELING

Quality & Beauty IN ART METAL CEILINGS AND SIDE WALLS

QUALITY—only first quality material is used in making FRIEDLEY-VOSHARDT ART METAL CEILINGS AND SIDE WALLS.

BEAUTY—is necessary for the complete and lasting satisfaction of your customers.

Having one of the finest equipped sheet metal plants in the country and employing only skilled workers enables us to serve you with QUALITY goods having the BEST DESIGNS.

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733-737 S. Halsted St.

FACTORY
761-771 Mather St.

CHICAGO, ILLINOIS

Manufacturing Jobber

of 28 ga. or 26 ga. Steel, 26 ga. or 24 ga. Armco
Iron, and Detroit 16 oz. Copper

EAVE TROUGHS and CONDUCTORS

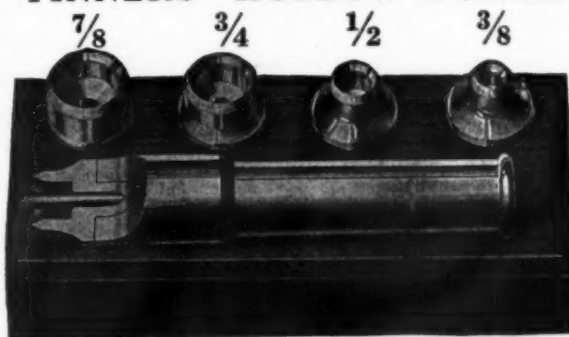
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H. B. Clifford Roofing Co.

Detroit, Mich.

Branch at Flint, Mich.

TINNERS' HOLLOW PUNCH



Write today for descriptive circular giving sizes and prices
WHITNEY METAL TOOL COMPANY 93 Forbes Street
Rockford, Illinois

CHICAGO STEEL CORNICE BRAKES

STANDARD OF THE WORLD



THE BEST BRAKE FOR ALL PURPOSES
Most Durable, Easiest Operated, Low in Price
Made in All Lengths and to Bend All Gauges of
Metal. Over 15,000 in use

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DREIS & KRUMP MFG. CO., 2915 S. Halsted Street, CHICAGO

C. G. HUSSEY & CO.

Rolling Mills and Office, PITTSBURGH, PA.

Manufacturers of
SHEET COPPER, BOTTOMS, ROLL COPPER, TINNED AND
POLISHED COPPER, NAILS, SPIKES, RIVETS, CONDUCTOR
PIPE, EAVES TROUGH, ELBOWS, SHOES, MITRES, ETC.
Branch Warehouses in New York, Chicago and St. Louis
Member, Copper & Brass Research Association



THE BIG VENT WITH THE GREAT PULL

ÆOLUS VENTILATORS

Made in all sizes of all metals. We make quick shipments.

ÆOLUS DICKINSON CO.

Vent Makers Since 1888

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Telephone: Lafayette 1862-1863

CONSTANT



ÆOLUS
PULL

SNIPS, TINNERS'.

Clover Leaf	40 & 10%
National	40 & 10%
Star	50%
Milcor	Net

SQUARES.

Steel and Iron	Net
(Add for bluing, \$3.00 per doz. net.)	
Mitre	"
Try	"
Try and Bevel	"
Try and Mitre	"
Fox's	per doz. \$6 00
Winterbottom's	10%

STAPLES.

Blind.	
Barbed	per lb. 21c@22c
Butter, Tub	" 16@19c
Fence—	
Polished	per 100 lbs. \$5 45
Galvanized	" 6 15
Netting.	
Galvanized	per 100 lbs. \$6 54
Wrought.	
Wrought Staples, Hasps and	
Staples, Hasps, Hooks and	
Staples, and Hooks and	
Staples	50 & 10%
Extra heavy	35%

STONES.

Axe.	
Hindustan	per lb. New Nets
More Grite	"
Washita	"

Emery.	
No. 126	per doz. New Nets

Oil Mounted.	
Arkansas Hard	
No. 7	per doz. New Nets
Arkansas Soft	"
Washita No. 717	"

Oil—Unmounted.	
Arkansas Hard per lb. New Nets	
Arkansas Soft	"
Lily White	"
Queer Creek	"
Washita	"

Scythe.	
Black Diamond per gro. New Nets	
Crescent	"
Green Mountain	"
LaMolle	"
Extra Quinine	"
bog	"
Red End	"

STOPS, BENCH.

No. 10 Morrill pat-	
tern	per doz. \$11 00
No. 11 Stearns pat-	
tern	" 10 00
No. 15 Smith pat-	
tern	" 7 00

STOPPERS, FLUE.

Common	per doz \$1 10
Gem, No. 1	" 1 10
Gem, flat, No. 3	" 1 00

STRETCHERS.

Carpet.	
Bullard's	per doz. \$3 90
Excelsior	" 5 25
Malleable Iron	" 70
Perfection	" 6 30
King	" 4 50

Wire.	
O. S. Elwood, No. 1 per doz. Nets	
O. S. Elwood, No. 2	"

SWIVELS.

Malleable Iron	per lb. \$0 10
Wrought Steel	per gro. \$4 50

TACKS.

Bill Posters' 6-oz., 25-lb.	
boxes, per lb.	15c
Upholsterers' 6-oz., 25 lb.	
boxes, per lb.	15½c

TAPES, MEASURING.

Asses' Skin	List & 40%
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THERMOMETERS.

Tin Case	per doz \$0c & \$1 25
Wood Backs	" 2 00 & 12 00
Glass	" 12 00

TIES.

Bale.	
Less than Carload Lots	70%

TRAPS.

Mouse and Rat.	Per Gross
Sure Catch Mouse Traps	\$ 2 50
Vim Mouse Traps	2 50
Short Stop Mouse Traps	2 40
Wood Choker Mouse	
Traps, 4 hole	11 25

Per Doz.

Sure Catch Rat Traps	\$ 0 85
Dead Easy Rat Traps	0 90
Packed in One Bushel Band Stave	
Baskets.	

List per Bushel

Sure Catch Mouse Traps	
(260 Traps)	\$ 6 25
Short Stop Mouse Traps	
(360 Traps)	6 00
Sure Catch Rat Traps (54	
Traps)	3 90
Short Stop Rat Traps (54	
Traps)	3 75

Assorted Mouse and Rat Traps.	
List per Bushel.	

Sure Catch (216 Mouse	
Traps and 26 Rat	
Traps)	\$5 65
Short Stop (216 Mouse	
Traps and 26 Rat	
Traps)	5 40

TROWELS.

Cement.	
Atkins No. 6	\$19 50
No. 9	25 50

TWINE.

White Cotton.	
Eureka, 4-ply	per lb. 30c
Cattle Wire—Galvanized	
catch weight spool, per	
3-ply and 6-ply Bale Lots	22½c

VALLEY.

Milcor	
Galv. formed or roll	60%

VENTILATORS.

Standard	30 to 40%
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VISES.

No. 700 Hand,	
Inches	4½ 5 5½
Doz.	\$11 15 13 00 14 85
No. 701. In.	4 5 6
Doz.	\$11 15 13 00 16 70
No. 1. Genuine Wentworth,	
Noiseless Saw. per doz.	9 25
No. 3. Genuine Wentworth,	
Noiseless Saw. per doz.	12 75
No. 500. All Steel Folding	
Saw	per doz. 16 00

WASHERS.

Over ½ in. barrel lots	
per 100 lbs.	\$6 25
Iron and Steel.	
In. 5/16 ¾ 1 1½ 1¾ 2 2½	
10¼c 9¼c 7¼c 7¼c 7 2/5c	

WEATHER STRIPS.

Metallic Stretched.	
½ in., per 100 ft.	\$1 80
¾ in., per 100 ft.	2 20
Wood and Felt.	
¾ in., per 100 ft.	\$1 56
¾ in., per 100 ft.	1 56

WEIGHTS.

Hitching	per lb. Nets
Sash—f. o. b. Chicago	
Smaller lots, per ten	\$47 50

WHEEL BARROWS.

Common Wood Tray	\$3 50
Steel Tray	5 50
Steel leg, garden	6 00

WIRE.

Plain annealed wire, No. 8	
per 100 lbs.	\$3 70
Galvanized barb wire, per	
100 lbs.	4 10
Wire cloth—Black painted,	
12-mesh, per 100 sq. ft.	2 35
Cattle Wire—galvanized	
catch weight spool, per	
100 lbs.	4 60
Galvanized Hog Wire, 80 rod	
spool, per spool	3 98
Galvanized plain wire, No. 9,	
per 100 lbs.	4 15
Stove Pipe, per stone	1 10

WOOD FACES.

60% off list.

WRENCHES.

Coes Steel Handle, 6-in.	40-10%
" " 8-in.	40-10%
" " 10-in.	40-10%
" " 12-in.	40-10%
Coes Knife-Handle, 6-in.	40-10%
" " 8-in.	40-10%
" " 10-in.	40-10%
" " 12-in.	40-10%
Coes All Patterns	40-10%

WRINGERS.

No. 790, Guarantee per doz.	\$55 50
No. 770, Bicycle	52 50
No. 670, Domestic	48 50
No. 110, Brighton	43 50
No. 750, Guarantee	55 50
No. 740, Bicycle	52 50
No. 22, Pioneer	29 00
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